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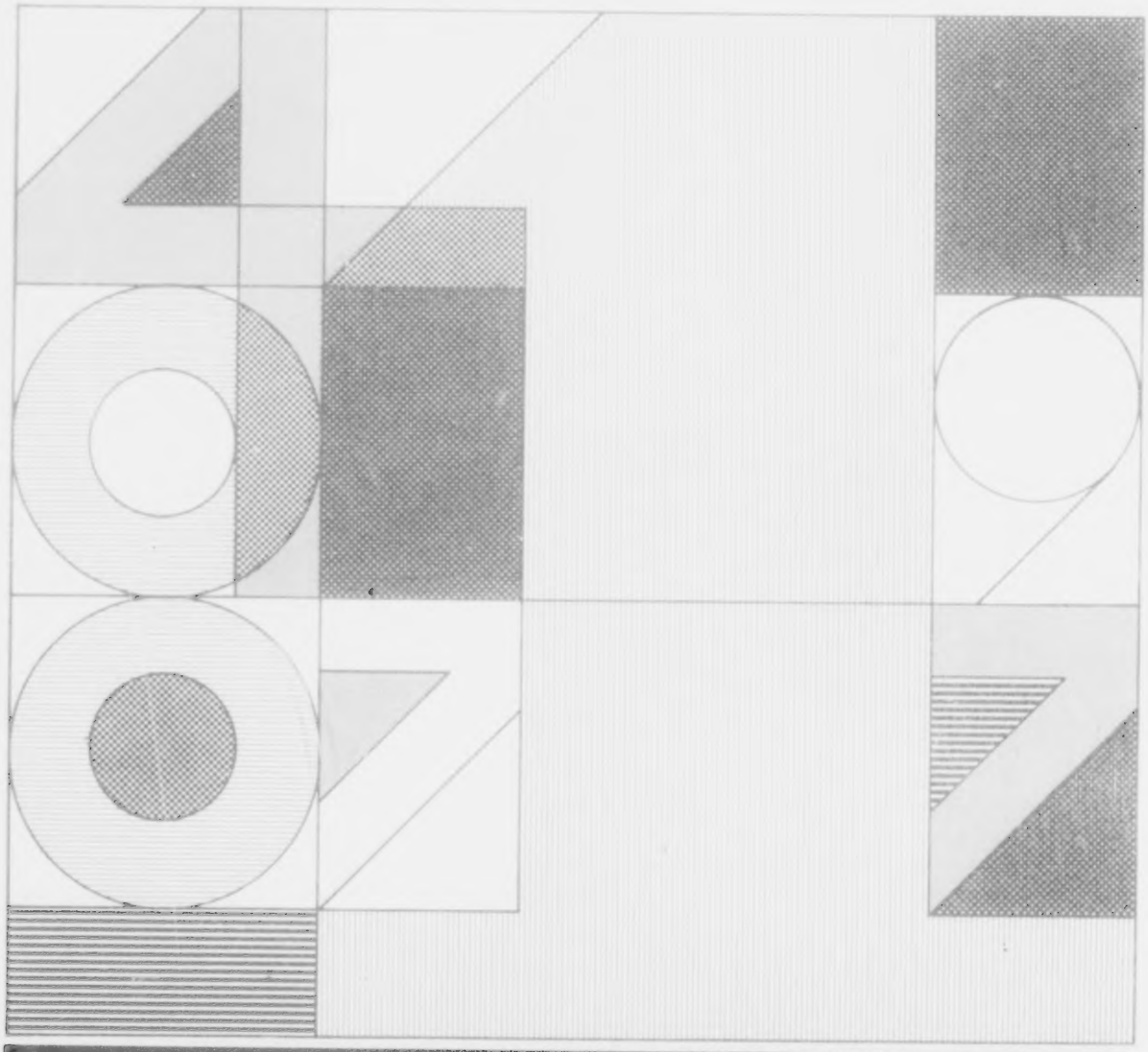
CONGRESS OF THE UNITED STATES
CONGRESSIONAL BUDGET OFFICE

JANUARY 1990

The Economic and Budget Outlook: Fiscal Years 1991-1995

A Report to the Senate and House Committees on the Budget—Part I



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1990 ANNUAL REPORT

THE ECONOMIC AND BUDGET OUTLOOK: FISCAL YEARS 1991-1995

The Congress of the United States
Congressional Budget Office

NOTES

Unless otherwise indicated, all years referred to in Chapter I are calendar years and all years in Chapters II and III are fiscal years.

Unemployment rates throughout the report are calculated on the basis of the civilian labor force.

Details in the text and tables of this report may not add to totals because of rounding.

Figures showing periods of recession (indicated by a shaded area) reflect the peak and trough of the recession.

The Balanced Budget and Emergency Deficit Control Act of 1985 (popularly known as Gramm-Rudman-Hollings) is also referred to in this volume more briefly as the Balanced Budget Act. This act was amended by the Balanced Budget and Emergency Deficit Control Reaffirmation Act of 1987.

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PREFACE

This volume is one of a series of reports on the state of the economy and the budget issued periodically by the Congressional Budget Office (CBO). In accordance with CBO's mandate to provide objective and impartial analysis, the report contains no recommendations.

The analysis of the economic outlook presented in Chapter I was prepared by the Fiscal Analysis Division under the direction of Frederick C. Ribe, Robert A. Dennis, and John F. Peterson. Kim J. Kowalewski wrote the chapter, and Matthew Salomon and John Sturrock carried out the forecast that is described therein. Background analysis was carried out by Trevor Alleyne, Robert Arnold, Victoria Farrell, Douglas R. Hamilton, Angelo Mascaro, Frank S. Russek, Jr., and Stephan S. Thurman. Research assistance was provided by Mark Decker, Jeanne Dennis, Nicholas Dugan, and Patricia Phill.

The baseline outlay projections were prepared by the staff of the Budget Analysis Division under the supervision of James L. Blum, C.G. Nuckols, Michael Miller, Charles Seagrave, Robert Sunshine, and Paul N. Van de Water. The revenue estimates were prepared by the staff of the Tax Analysis Division under the direction of Rosemary D. Marcuss and Kathleen M. O'Connell.

Chapters II and III were written by Kathy A. Ruffing with contributions by Rosemary D. Marcuss, Kathleen M. O'Connell, Frank Sammartino, and Mary B. Maginniss. The appendixes were written by Paul N. Van de Water (Appendix A), Paul T. Christy (Appendix B), Richard Krop (Appendixes C and E), and David Elkes (Appendix D). Paul N. Van de Water wrote the summary of the report.

Paul L. Houts supervised the editing and production of the report. Major portions were edited by Sheila T. Harty and Sherry Snyder. Nancy H. Brooks provided editorial support during production. The authors owe special thanks to Marion Curry, Janice Johnson, Dorothy Kornegay, Verlinda Lewis, L. Rae Roy, and Robert T. Whitney, who typed the many drafts. Kathryn Quattrone prepared the report for publication.

Robert D. Reischauer
Director

January 1990

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SUMMARY

The Congressional Budget Office (CBO) estimates that the federal budget deficit will fall from $152 billion in fiscal year 1989 to $138 billion in 1990. Over the next few years, no further progress in reducing the deficit can be expected under current budgetary policies. The Balanced Budget Act requires a deficit of $64 billion in 1991 and a balanced budget in 1993. But without spending cuts or tax increases, the deficit in 1993 is likely to be no lower than in 1990. The Summary Figure compares CBO's baseline budget projections for 1990 through 1995 with the statutory targets.

CBO's budget projections assume that the U.S. economy will grow by almost 2 percent in 1990 and slightly faster next year. The restrictive monetary policy that was in force from 1987 through mid-1989 is still tending to slow the economy, as will the tighter fiscal policy slated for 1990. The Federal Reserve began to loosen monetary policy in June 1989, and CBO expects that it will continue to encourage lower interest rates for most of this year. CBO forecasts that this policy will succeed in avoiding a recession in 1990 without boosting inflation.

Summary Figure.
Baseline Deficits and Targets

SOURCE: Congressional Budget Office.

THE BUDGET OUTLOOK

The budget baseline shows what would happen if current budgetary policies were continued without change. It is not a forecast of future budget outcomes, since many policy changes will doubtless be made over the next five years. The baseline methodology hews to the rules contained in the Balanced Budget Act. For revenues and entitlement spending, the baseline generally assumes that laws now on the statute books will continue. For defense and nondefense discretionary spending, the projections for 1991 through 1995 are based on the 1990 appropriations, increased only to keep pace with inflation. As a result, the baseline makes no explicit allowance for activities not covered in the 1990 appropriations, such as renewing long-term subsidized housing contracts that are about to expire. Conversely, the baseline for 1991 through 1995 includes money for items that were funded in 1990 but may not be needed in the future, such as the decennial census and hurricane and earthquake relief. Adjusting the baseline for these special situations, however, would have little effect on the totals.

Baseline Projections Through 1995

Under CBO's baseline budget projections, the deficit is projected to remain near its 1990 level of $138 billion in 1991 through 1993. The baseline deficit then falls to $130 billion in 1994 and $118 billion in 1995 (see Summary Table 1).

The Balanced Budget Act calls for a deficit of $64 billion in 1991, $28 billion in 1992, and zero in 1993. CBO's 1991 projection of $138 billion exceeds the target by $74 billion. Unless other spending cuts or tax increases were enacted, the act would require eliminating the excess deficit through automatic across-the-board cuts of 19 percent in defense and 28 percent in nondefense programs. Under the terms of the Balanced Budget Act, however, the Office of Management and Budget (OMB), not CBO, determines whether automatic spending cuts are necessary and how large the cuts must be. OMB's budget estimates are usually more optimistic than CBO's.

The budget outlook is not as gloomy if the deficit is compared with the size of the economy. As a share of gross national product (GNP),

SUMMARY TABLE 1. BASELINE BUDGET PROJECTIONS AND UNDERLYING ASSUMPTIONS

	1989	1990	1991	1992	1993	1994	1995
Budget Projections (By fiscal year)[a]							
In billions of dollars							
Revenues	991	1,067	1,137	1,204	1,277	1,355	1,438
Outlays	1,143	1,205	1,275	1,339	1,418	1,484	1,555
Deficit	152	138	138	135	141	130	118
Deficit Targets[b]	136	100	64	28	0	b	b
As a percentage of gross national product							
Revenues	19.2	19.6	19.6	19.5	19.4	19.3	19.3
Outlays	22.2	22.1	22.0	21.7	21.5	21.2	20.8
Deficit	2.9	2.5	2.4	2.2	2.1	1.8	1.6
Economic Assumptions (By calendar year)							
GNP (Billions of current dollars)	5,235	5,534	5,893	6,279	6,688	7,121	7,579
Real GNP Growth (Percentage change)	2.9	1.7	2.4	2.5	2.5	2.4	2.4
Implicit GNP Deflator (Percentage change)	4.2	4.0	4.0	4.0	4.0	4.0	4.0
Fixed-Weighted GNP Price Index (Percentage change)	4.5	4.1	4.3	4.3	4.3	4.3	4.3
CPI-U (Percentage change)[c]	4.8	4.0	4.3	4.3	4.3	4.3	4.3
Civilian Unemployment Rate (Percent)	5.3	5.6	5.5	5.5	5.5	5.5	5.5
Three-Month Treasury Bill Rate (Percent)	8.1	6.9	7.2	6.9	6.5	6.1	5.8
Ten-Year Government Note Rate (Percent)	8.5	7.8	7.7	7.6	7.5	7.4	7.3

SOURCE: Congressional Budget Office.

a. The budget figures include Social Security, which is off-budget but is counted for purposes of the Balanced Budget Act targets. For comparability with the targets, the projections exclude the Postal Service, which is also off-budget.

b. The Balanced Budget Act established targets for 1988 through 1993.

c. CPI-U is the consumer price index for all urban consumers.

the baseline deficit falls from 2.5 percent in 1990 to 2.4 percent in 1991 and 1.6 percent in 1995. The assumption of no real growth in discretionary spending causes outlays to fall from 22.1 percent of GNP in 1990 to 20.8 percent of GNP in 1995. Revenues also decline slightly, however, from 19.6 percent of GNP in 1990 to 19.3 percent in 1995. Although personal income taxes keep pace with income growth, all other tax sources remain stable or decline relative to GNP.

Changes in the Projections Since August

CBO's new baseline projections reflect all legislation enacted during the first session of the 101st Congress and are based on up-to-date economic and technical estimating assumptions. The new projections differ little from those published in CBO's August 1989 report (see Summary Table 2). Recently enacted legislation has reduced the projected deficits, but in most years these legislative changes are largely offset by economic and technical revisions.

Before adjourning in November, the Congress cleared all 13 regular appropriation bills, adopted a reconciliation bill, and repealed catastrophic health insurance under Medicare. In total, this legislation cut the deficit by an estimated $12 billion in 1990 but by only $5 billion in 1991. The savings shrink in 1991 for two reasons. First, the reconciliation bill contained $7 billion in nonrecurring savings in 1990--$4 billion from accounting changes and timing shifts, such as taking the Postal Service off-budget, and another $3 billion from speeding up collections of payroll and certain excise taxes. Second, the appropriation bills reduced outlays temporarily in 1990 because of $2 billion in receipts from foreign military sales prepayments, which will not be repeated in later years. The appropriation bills actually increased nondefense spending authority and raised outlays in 1991 and beyond.

CBO's updated economic assumptions reduce the deficit by $1 billion in 1990, $9 billion in 1991, and similar amounts thereafter. By itself, lower projected inflation reduces baseline outlays and revenues in tandem and has little effect on the deficit. But the robust performance of financial markets increases receipts from taxes on capital gains, which reduces the loss in revenues.

SUMMARY TABLE 2. CHANGES IN CBO BASELINE DEFICIT PROJECTIONS SINCE AUGUST
(By fiscal year, in billions of dollars)

	1990	1991	1992	1993	1994
August 1989 Baseline Deficit[a]	141	144	141	143	128
Changes					
Enacted legislation					
Appropriations	-1	4	6	6	6
Reconciliation					
Sequestration	-3	-4	-4	-4	-4
Other	-11	-5	-7	-7	-8
Repeal of catastrophic health insurance	5	1	-2	-2	-2
Other legislation	-1	-1	-1	-1	-1
Debt service	b	-1	-1	-2	-3
Subtotal	-12	-5	-8	-9	-12
Updated economic assumptions					
Revenues[c]	2	-1	b	6	13
Outlays	-3	-8	-10	-14	-19
Subtotal	-1	-9	-10	-8	-6
Technical reestimates					
Revenues[c]	1	b	1	4	4
Farm price supports	-2	b	1	1	1
Deposit insurance	8	2	2	-2	-3
Medicaid and Medicare	1	2	4	5	7
Social Security	1	1	2	2	2
Net interest	2	1	1	3	4
Other outlays	b	1	2	2	4
Subtotal	11	8	13	16	20
Total changes	-3	-6	-5	-2	2
January 1990 Baseline Deficit[d]	138	138	135	141	130

SOURCE: Congressional Budget Office.

a. Includes Social Security.

b. Less than $500 million.

c. Revenue decreases are shown with a positive sign because they increase the deficit.

d. Includes Social Security and excludes the Postal Service.

All other revisions, termed technical reestimates, boost the deficit by $11 billion in 1990, $8 billion in 1991, and $20 billion in 1994. The 1990 increase is dominated by higher outlays for deposit insurance, which result from additional spending for troubled banks, the outlay of money appropriated for savings and loans in 1989 but not spent, and a reduction in receipts from borrowing by the off-budget Financing Corporation. In later years, the technical reestimates arise from various sources. Notably, higher Medicaid outlays add to the deficit by increasing amounts, as spending continues to outstrip previous projections. Projected spending is also higher for Social Security and other benefits, revenues are slightly lower, and debt service costs therefore rise.

Social Security Projections

The Balanced Budget Act currently includes Social Security in its calculations and makes Social Security subject to the same fiscal discipline as the rest of the budget. From an economic perspective, this makes sense. The purpose of reducing the deficit is to promote national saving. The federal budget deficit absorbs private saving, thereby impairing future living standards and the nation's ability to support the retirement of the baby-boom generation beginning 20 years hence. The annual balance in the Social Security programs affects national saving in exactly the same way as the balance in any other government accounts.

Thus, the most appropriate measure of the impact of the federal budget on the economy is the total deficit, not any part of it. The total government deficit, including the Social Security and other trust funds, determines the government's fiscal stance, its drain on credit markets, and the amount of saving that it diverts from uses that promote growth in living standards. For this reason, the previous tables have displayed figures for total revenues, outlays, and the deficit.

At the same time, the Balanced Budget Act requires that the Social Security trust funds be shown as off-budget to highlight their contribution to the totals. With income of the trust funds exceeding benefits and other costs, the Social Security surplus grows from $66 billion in 1990 to $128 billion in 1995, as shown in Summary Table 3. An increasing amount of this surplus, however, reflects interest pay-

ments received from the Treasury, which do not affect the government's overall financing needs. Excluding interest, Social Security's contribution to holding down the total deficit looks much smaller--about $50 billion in 1990 and $78 billion in 1995--and the on-budget deficit remains roughly constant.

THE ECONOMIC OUTLOOK

CBO expects that the Federal Reserve will safely steer the economy between the shoals of a recession and higher inflation by further reducing interest rates this year. Most private-sector forecasters share

SUMMARY TABLE 3. ON- AND OFF-BUDGET TOTALS
(By fiscal year, in billions of dollars)

	1990	1991	1992	1993	1994	1995
On-Budget (Excludes Social Security and Postal Service)						
Revenues	779	828	874	924	978	1,037
Outlays	984	1,041	1,095	1,163	1,220	1,283
Deficit	204	212	221	239	242	246
Off-Budget (Social Security)[a]						
Revenues	288	309	330	352	376	401
Outlays	222	234	244	254	264	273
Surplus	66	74	85	98	112	128
Total[a]						
Revenues	1,067	1,137	1,204	1,277	1,355	1,438
Outlays	1,205	1,275	1,339	1,418	1,484	1,555
Deficit	138	138	135	141	130	118

SOURCE: Congressional Budget Office.

a. For comparability with the Balanced Budget Act targets, the projections exclude the Postal Service, which is also off-budget.

this view, and the CBO forecast is close to the consensus for 1990 and 1991, as shown in Summary Table 4.

CBO forecasts that real gross national product will grow 1.8 percent on a fourth-quarter-to-fourth-quarter basis in 1990. This is near the 1989 rate of 2.0 percent, when real GNP is adjusted to exclude the rebound of the farm sector from the previous year's drought. Lower interest rates in 1990 are expected to contribute to slightly faster growth of 2.5 percent in 1991. Short-term interest rates are projected to rise in 1991 as the Federal Reserve moves to head off inflationary pressures.

The economic forecast assumes further movement toward the Balanced Budget Act target in 1991. Together with declines in long-term interest rates, this shift will reduce the fraction of the economy's real output devoted to personal and government consumption and increase the share going to business and residential investment. Continued depreciation of the dollar will increase real net exports. The increases in investment and exports mirror a slightly higher national saving rate, which comprises saving by both the private sector and government. Nonetheless, the national saving rate next year will remain well below historical levels.

Low saving slows the growth in living standards by reducing the accumulation of productive capital by Americans. The low rate of saving is particularly disturbing because the retirement of the post-World War II baby-boom generation will also cause living standards to grow less rapidly starting in about 2010. If the saving rate does not go up, the well-being of the average American will improve much less rapidly during the first half of the next century than it has during the second half of this one.

The CBO forecast envisions little change in inflation. Continued high rates of employment and factory utilization and rising import prices, which tend to increase inflation, will be balanced by slower growth in labor costs stemming from higher productivity growth. The consumer price index is expected to rise 4.1 percent in 1990 and 4.4 percent in 1991, only slightly below the 1989 rate of 4.6 percent. The implicit GNP deflator is projected to rise 4.1 percent in 1990 and 4.0 percent in 1991, about the same as in the past two years.

SUMMARY TABLE 4. COMPARISON OF CBO AND *BLUE CHIP* SHORT-RUN ECONOMIC FORECASTS

	Actual 1988	Estimated 1989	Forecast 1990	Forecast 1991
Fourth Quarter to Fourth Quarter (Percentage change)				
Real Gross National Product				
CBO	3.4	2.5	1.8	2.5
Blue Chip	3.4	2.5	1.8	2.4
Implicit GNP Deflator				
CBO	4.0	3.9	4.1	4.0
Blue Chip	4.0	3.9	4.0	4.0
Consumer Price Index (CPI-U)[a]				
CBO	4.3	4.6	4.1	4.4
Blue Chip	4.3	4.6	4.2	4.2
Calendar-Year Averages (Percent)				
Civilian Unemployment Rate				
CBO	5.5	5.3	5.6	5.5
Blue Chip	5.5	5.3	5.6	5.6
Three-Month Treasury Bill Rate				
CBO	6.7	8.1	6.9	7.2
Blue Chip	6.7	8.1	7.1	7.2
Ten-Year Government Note Rate				
CBO	8.8	8.5	7.8	7.7
Blue Chip	8.8	8.5	7.7	7.7

SOURCES: Congressional Budget Office; Eggert Economic Enterprises, Inc., *Blue Chip Economic Indicators* (January 10, 1989); Department of Commerce, Bureau of Economic Analysis; Department of Labor, Bureau of Labor Statistics.

NOTE: The CBO forecast does not reflect preliminary 1989 fourth-quarter data for GNP published in January 1990.

a. CPI-U is the consumer price index for all urban consumers.

b. *Blue Chip* does not project a 10-year note rate. The values shown here are based on the *Blue Chip* projection of the Aaa bond rate, adjusted by CBO to reflect the estimated spread between Aaa bonds and 10-year government notes.

For 1992 through 1995, CBO's economic assumptions are not a forecast of future economic conditions but are projections based on historical trends. Real GNP is projected to grow at an average annual rate of 2.4 percent, which is in line with growth in the labor force and productivity. Inflation and unemployment both hold steady. Interest rates are projected to decline throughout the 1992-1995 period until they reach the historical average of inflation-adjusted rates.

The short-run forecast and long-run assumptions do not reflect the goal of some policymakers to reduce the inflation rate to a negligible amount over the next five years. CBO's analysis suggests that inflation will not come down without a sharp or a prolonged increase in unemployment. Cutting the deficit, however, might reduce inflation in the longer term by increasing national saving, investment, and productivity growth.

CHAPTER I

THE ECONOMIC OUTLOOK

Neither a recession nor rising inflation is likely in the near future, according to current indicators. The present economic expansion should continue, although at a slow pace, and inflationary pressures should ease slightly over the next two years. Falling interest rates promoted by the Federal Reserve are likely to keep the economy growing at close to a 2 percent annual rate this year and contribute to slightly faster growth next year. The civilian unemployment rate is expected to average close to 5½ percent in both 1990 and 1991, up slightly from about 5¼ percent in 1989. The inflation rate should average slightly more than 4 percent in both 1990 and 1991.

While it is widely agreed that the current rate of inflation--a 4 percent to 4½ percent annual rate--is higher than it should be, the CBO economic outlook does not offer much hope for further reductions in the inflation rate without substantially more unemployment over the next few years. Unexpected improvements in productivity growth or expectations of lower inflation could decrease the rate of inflation without a large increase in unemployment, but such favorable developments are unlikely given current fiscal and monetary policies.

RECENT ECONOMIC DEVELOPMENTS

Over the past several years, a number of developments have tended both to slow economic growth and to raise inflation. Current economic indicators, however, do not suggest that economic growth will slow further or that inflation will increase in the near future.

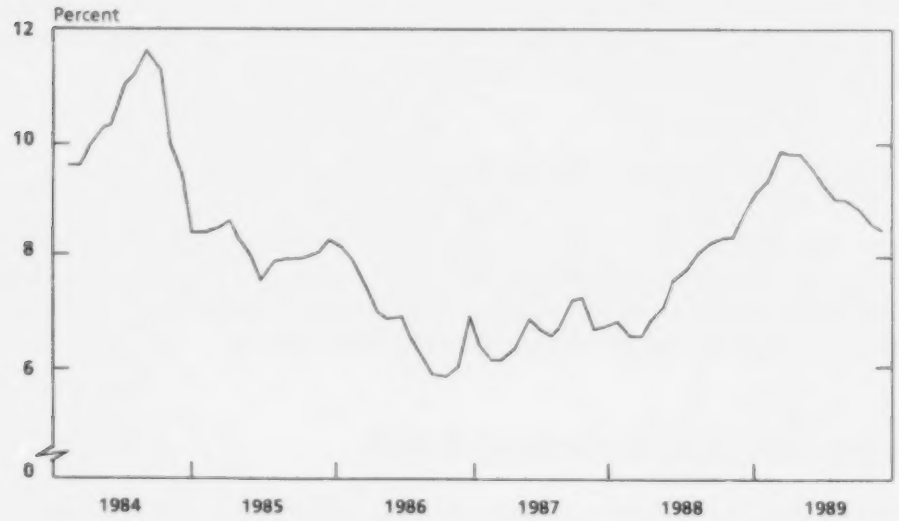
Factors Tending to Slow Economic Growth

Factors tending to slow economic growth include the delayed effect of monetary policy actions that increased the level of short-term interest rates and, to a lesser extent, long-term interest rates, for most of the

past two years; budgetary restraint slated for fiscal year 1990; generally restrictive monetary policy actions of other industrialized countries; and the dollar's appreciation during most of 1989.

Monetary Policy Actions Between 1987 and 1989. Restrictive monetary policy actions taken between 1987 and mid-1989 constitute the main factor tending to slow economic growth. Faced with surging real output growth and growing fears of rising inflation in the first half of 1987, the Federal Reserve began raising the federal funds interest rate in keeping with its policy of reducing the rate of inflation while maintaining expansion. These restrictive actions contributed to an increase in the federal funds interest rate of about three and one-half percentage points between the first quarter of 1987 and the second quarter of 1989 (see Figure I-1). Most of this hike occurred after the first quarter of 1988, when it became clear that the October 1987 stock market crash was going to do little to reduce the high rate of resource use in the economy. Because there is a substantial lag between changes in monetary policy actions and their impact on economic activity, this

Figure I-1.
Federal Funds Rate



SOURCES: Congressional Budget Office; Federal Reserve Board.

spike in rates helped slow the growth of real gross national product (GNP) from about 5½ percent in 1987 (on a fourth-quarter-to-fourth-quarter basis) to 4 percent in 1988 and an estimated 2 percent in 1989 (the latter two years are adjusted for the effects of the 1988 drought).

The Federal Reserve began reversing its restraining actions in June 1989, as evidence accumulated of slow M2 growth during the first half of 1989 and weakening economic activity; since that time, both short- and to a lesser extent long-term interest rates have fallen. Between May and December of last year, the federal funds interest rate dropped about one and one-half percentage points while the 10-year Treasury note rate fell about one percentage point. Although these declines in interest rates lower the risk of recession, aggregate demand is not likely to rebound strongly since short-term interest rates remain above their levels in early 1987, when the Federal Reserve began its restraining actions.

Fiscal Policy Actions in Fiscal Years 1990 and 1991. The CBO economic forecast incorporates the modest deficit reduction embodied in the Omnibus Budget Reconciliation Act of 1989 and other legislation in fiscal year 1990, and assumes additional actions to reduce the deficit in fiscal year 1991. CBO estimates that current budgetary policy (as represented in the CBO baseline) will produce federal deficits of $138 billion in fiscal years 1990 and 1991, down from $152 billion in fiscal year 1989. Recent legislation reduced the deficit below CBO's August 1989 baseline by $12 billion in fiscal year 1990 and $5 billion in 1991. Further details of this legislation appear in Chapter II; see also Box I-1 for information on the possibility of the Balanced Budget Act targets being suspended.

Current budgetary policy should restrict short-run economic activity. One commonly used measure of fiscal restraint is the change in the standardized-employment deficit. The standardized-employment deficit is an estimate of the deficit that would occur if the economy were continuously operating at a relatively stable nonaccelerating inflation rate of unemployment (NAIRU), thereby excluding changes in revenues and outlays related to cyclical movements in economic activity. As shown in Table I-1, current budgetary policy reduces the standardized-employment deficit in fiscal year 1990 by $26 billion to a level of $132 billion, or equivalently, by 0.7 percent of potential GNP to a level of 2.4 percent (see also Figure I-2).

BOX I-1
Provisions to Suspend the Balanced Budget Act Targets

The Balanced Budget Act gives the Congress the power to suspend its deficit targets temporarily if the actual or projected pace of economic expansion is too slow--a development that could come into play as early as the spring of 1990. Because cutting spending or raising taxes could further impede the economy's expansion, the act requires that the Congress consider a bill to suspend the deficit reduction targets if either of two signs of slowing economic growth appears:

- The Commerce Department estimates that actual economic growth has slowed to a rate of 1 percent a year or less for two consecutive calendar quarters;[1] or
- The Congressional Budget Office or the Office of Management and Budget forecasts that economic growth will be less than zero for two consecutive quarters within a year of when the forecast is made.[2]

The act provides for speedy introduction and consideration of such a bill by the full House and Senate, but the deficit targets are suspended only if it is finally enacted--that is, signed by the President or passed over his veto. The Congress can vote to suspend the targets for the fiscal year in progress at the time, for the following fiscal year, or for both. The targets for later years, however, would remain in effect.

The provision for suspending the targets for deficit reduction permits the Congress to avoid temporarily exacerbating an economic slowdown with restrictive budget policies. Cutting federal spending or raising taxes could make a slowdown worse by reducing demand for the economy's output by the federal government itself or by those whose incomes are affected by federal taxes, grants, and other programs. This potentially restrictive impact could be increased by "multiplier effects" as the initial reduction in demand spreads further. Such an impact would be temporary, however, since it would probably bring about reductions in interest and exchange rates that would eventually reverse the economic slowdown.

Because some forecasters now expect that the pace of expansion is less than 1 percent in the fourth quarter of 1989, suspension of the Balanced Budget Act targets for fiscal year 1990 as specified by this provision of the act could become a possibility in the spring of this year, when the Commerce Department's estimate of economic growth in the first quarter of 1990 is first published.

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1. The judgment can be based on either the preliminary or the revised Commerce Department figures.

2. The suspension can be based on a forecast that the economy's growth will be less than zero for two or more quarters within a five-quarter period, beginning in the quarter before the forecast is made. (Sometimes economists are still "forecasting" developments in past quarters because data on actual developments in those quarters are not available yet.)

However, budgetary policy may have a smaller impact on economic activity than is indicated by the change in the standardized-employment deficit if the policy includes those types of revenues and outlays that have little or no effect on economic activity. For example, accounting changes, timing shifts, and asset swaps or sales generally will have a small impact on the economy. In the current fiscal year, the largest of these items are the asset swaps related to resolving the problems of the savings and loan industry. These three types of budgetary actions, however, have a minor effect on the change in the standardized-employment deficit because they are expected to be of roughly the same magnitude in both fiscal years 1989 and 1990.

Another factor that affects the standardized-employment deficit but should have little impact on current or future economic activity is the sharp increase over fiscal year 1989 in capital gains tax receipts expected during the current fiscal year. These capital gains tax receipts

TABLE I-1. STANDARDIZED-EMPLOYMENT DEFICIT
(By fiscal year, on a budget basis)

	1989	1990	1991	1992	1993	1994	1995
In Billions of Dollars							
CBO Baseline	158	132	127	125	129	117	104
Standardized Deficit Targets[a]	142	93	53	17	-12	b	b
As a Percentage of Potential Gross National Product[c]							
CBO Baseline	3.1	2.4	2.2	2.0	2.0	1.7	1.4
Standardized Deficit Targets[a]	2.8	1.7	0.9	0.3	-0.2	b	b

SOURCE: Congressional Budget Office.

a. These estimates indicate what the federal budget deficit would be at potential GNP assuming the Balanced Budget Act targets are achieved.

b. The Balanced Budget Act sets targets only through fiscal year 1993.

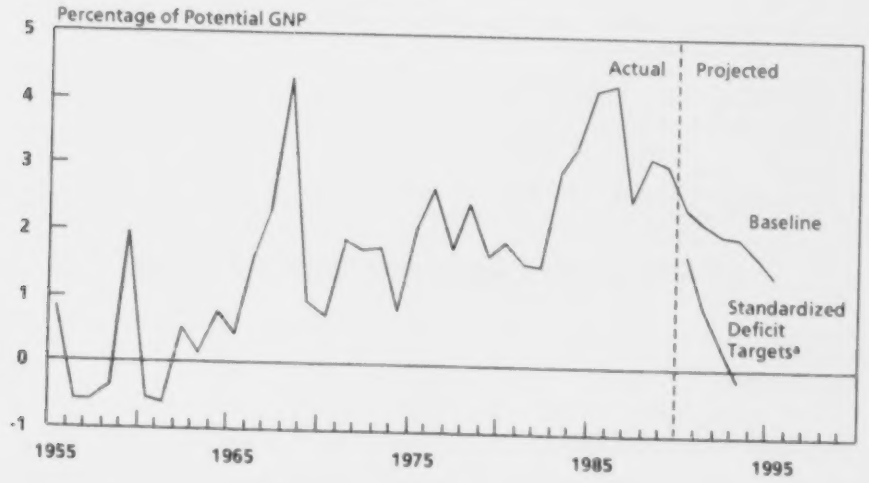
c. Potential GNP is the estimated level of GNP that would occur if the unemployment rate was at NAIRU (the nonaccelerating inflation rate of unemployment).

are linked to, among other things, the strong jump in common stock prices since 1987. They have little additional effect on economic activity because the net economic impact of both the gains and taxes on them probably took place when the gains occurred.

The CBO economic forecast assumes that further modest budgetary actions to reduce the deficit in fiscal year 1991 will result in a standardized-employment deficit between the levels implied by the CBO baseline and the deficit targets. With no additional budgetary actions beyond the CBO baseline, the standardized-employment deficit would be $127 billion in fiscal year 1991, well above the standardized-employment deficit implied by the Balanced Budget Act (Gramm-Rudman-Hollings).

Although current and assumed budgetary policies restrain economic activity only modestly in the short run, their long-run impact

Figure I-2.
The Standardized-Employment Deficit
(By fiscal year, on a budget basis)



SOURCE: Congressional Budget Office.

a. These estimates indicate what the federal budget deficit would be at potential GNP assuming the Balanced Budget Act targets are achieved.

should be salutary. By reducing the federal deficit, these actions boost national saving and wealth, thereby raising future standards of living.

Foreign Monetary Policy Actions. A third factor that tends to slow economic growth is the restrictive monetary policy action taken by many other industrialized countries, which worsens the outlook for U.S. exports in 1990. These policy actions, like those by the Federal Reserve in the United States, were taken to combat pressures of rising inflation. For example, the average annual inflation rate for 10 major industrialized nations excluding the United States was 5.2 percent during the first half of 1989, after posting a 2.9 percent rate on a fourth-quarter-to-fourth-quarter basis in 1988. Although temporary factors boosted inflation in several countries during the first half of 1989, inflation rates abroad generally have drifted up since 1987. The restrictive monetary policy actions taken abroad have had little apparent effect on foreign economic growth as yet, but are likely to slow economic growth this year.

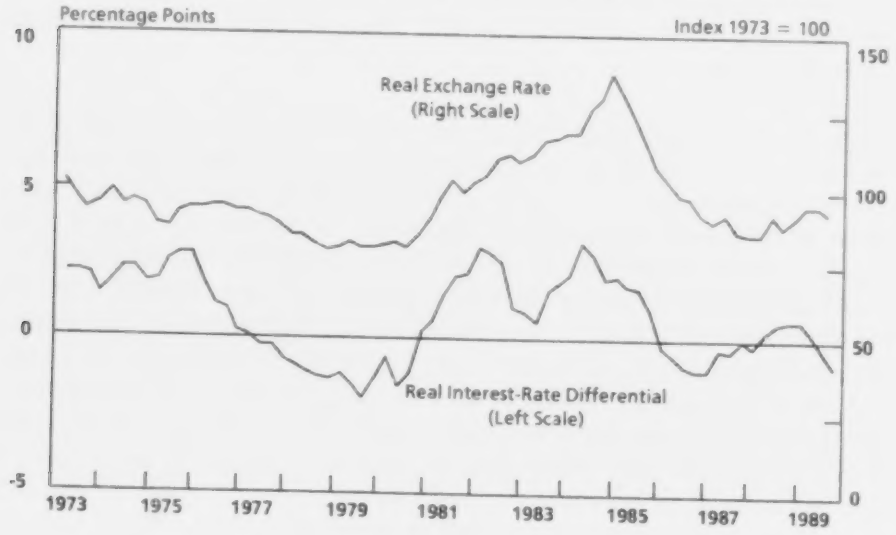
The Exchange Value of the U.S. Dollar. The rise in the exchange value of the U.S. dollar during the first half of last year has been a fourth factor working to slow economic growth, in this case through slower growth of real U.S. net exports. Between December 1988 and June 1989, the trade-weighted exchange value of the dollar rose slightly more than 12 percent as the spread between U.S. and foreign interest rates widened and political uncertainties abroad increased the attractiveness of the dollar to investors (see Figure I-3). Although the reversal of the difference in interest rates caused the dollar to fall about 8 percent between June and December and further in early January, this recent decline will take some time to spur real export growth. If the dollar remains at or below its current level, however, real net exports should begin to improve by late 1990 or early 1991.

Factors Tending to Raise the Inflation Rate

At the same time that developments tending to slow economic growth have occurred, two factors have been putting upward pressure on the inflation rate. The main one is the continuing high rates of resource use, and the second and lesser factor is a small increase in the rate of inflation in import prices.

Continued High Rates of Resource Use. High rates of resource use are reflected in three different measures: the civilian unemployment rate, the gap between actual and potential real gross domestic product (GDP), and the rate of capacity utilization in manufacturing. The civilian unemployment rate moved narrowly around 5.3 percent for most of the year and remained close to CBO's estimate of roughly 5½ percent for the NAIRU (see Figure I-4). Actual real GDP exceeded potential real GDP slightly on a drought-adjusted basis for most of 1988 and 1989, though CBO estimates that actual real GDP was close to its potential in the fourth quarter of 1989. Finally, although rates of

Figure I-3.
The Exchange Rate and Interest-Rate Differential

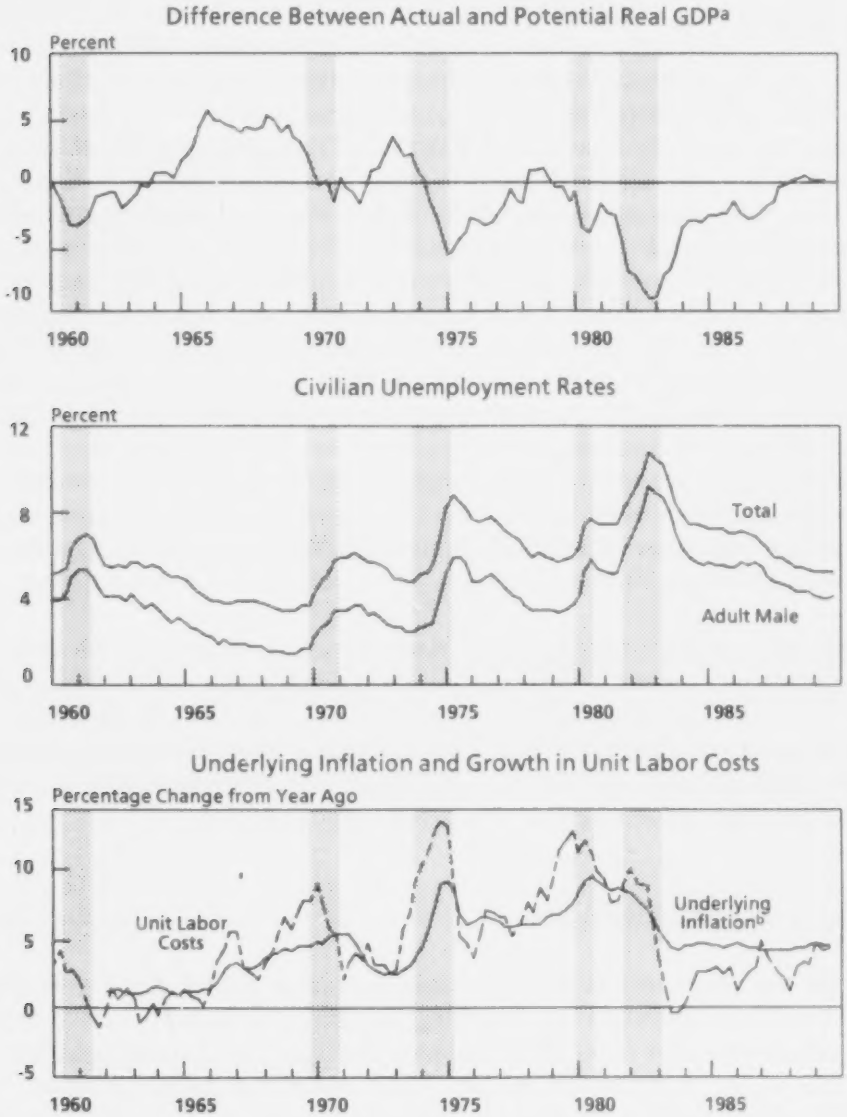


SOURCES: Congressional Budget Office; Federal Reserve Board; International Monetary Fund.

NOTE: The real exchange rate is the level of U.S. consumer prices relative to consumer prices in 10 industrialized countries, weighted by trade shares and adjusted by dollar exchange rates against the currencies of those countries. Its movements are dominated by movements in exchange rates. An increase in the real exchange rate corresponds to dollar appreciation.

The real interest-rate differential is the difference between U.S. real long-term interest rates and an average of foreign real long-term rates weighted by gross domestic product. Real interest rates are nominal long-term rates less expected inflation, estimated by a two-year centered moving average of actual and forecast inflation rates.

Figure I-4.
Resource Use and Inflation



SOURCES: Congressional Budget Office; Department of Labor, Bureau of Labor Statistics; Department of Commerce, Bureau of Economic Analysis.

a. The Congressional Budget Office's method of calculating potential real gross domestic product (GDP) is described in Appendix B of *The Economic and Budget Outlook: An Update* (August 1987).

b. Consumer price index for all urban consumers (CPI-U) excluding food, energy, and used cars.

capacity utilization vary considerably among industries, the rate for all industries remains above 1986 and 1987 average levels even though it fell slightly last year.

These high rates of resource use put upward pressure on the rates of inflation in both prices and wages. Signs of increased pressure on wages have already appeared. Wages and salaries of workers in private industry rose 4.4 percent during the 12 months ending in September 1989, after rising an unusually slow 3.3 percent during the same period in 1987 and 3.7 percent in 1988. Total compensation of labor rose a faster 4.7 percent during the 12 months ending in September 1989, as a result of continued strong growth in employee benefit costs, including Social Security taxes. Among workers in the nonfarm business sector, growth in compensation per hour continued to rise at a fast 5.4 percent over the four quarters ending in the third quarter of 1989, while growth in labor productivity slowed to only 1.0 percent. Consequently, unit labor costs--labor compensation costs per unit of output--in the nonfarm business sector rose 4.3 percent during the year ending in the third quarter of 1989 after rising 3.3 percent during the same period in 1988 (see Figure I-4).

Rising Inflation in Import Prices. An additional source of inflationary pressure is the recent decline in the foreign exchange value of the dollar. This decline on a trade-weighted basis since June is expected to contribute to an increase in the inflation rate of non-oil import prices to about a 3.5 percent annual rate on a fourth-quarter-to-fourth-quarter basis this year, offsetting last year's 3.5 percent decline.

Current Economic Indicators

Despite the pressures tending to slow economic growth that were discussed earlier, recent data do not suggest that a recession is imminent. Short-term interest rates have fallen since June; consumer confidence remains high; business plans for plant and equipment spending remain healthy; inventories are generally in line with sales except in the auto industry; home sales have picked up recently; nonfarm payroll employment continues to grow moderately; and the money supply (M2) continues to grow strongly.

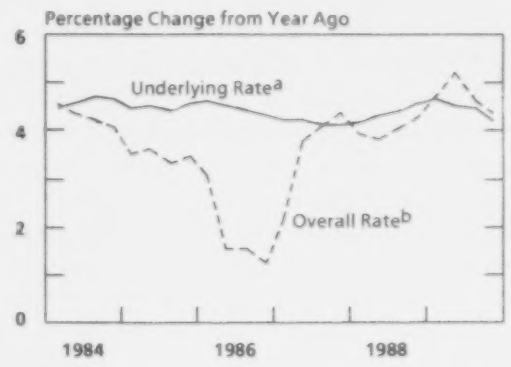
Offsetting these favorable indicators are signs of a growing weakness in manufacturing. Employment in the manufacturing sector has fallen steadily since March 1989, with most of the decline appearing in the durable goods industries, particularly motor vehicles and equipment; industrial production in manufacturing has fallen moderately since August; and orders for manufactured goods excluding aircraft have weakened in recent months.

Recent data also indicate that the inflationary pressures discussed earlier have not led to a sharp increase in the inflation rate. The underlying inflation rate--the increase in the price index of goods and services purchased by urban consumers (CPI-U) excluding the prices of food, energy, and used cars--has fallen from its recent high in the first quarter of 1989 (see Figure I-5). Although food and energy prices rose sharply in December and January as a result of unseasonably cold weather and a serious refinery accident in December, the underlying inflation rate is unlikely to rise substantially in the near term. The increases in food and energy prices should be reversed in coming months by the return of more normal weather and increased production of heating oil at other refineries.

THE ECONOMIC FORECAST AND PROJECTION

CBO's view of the economic outlook consists of two parts: a short-run forecast of economic activity for 1990 and 1991, which is based on

Figure I-5.
Recent Inflation



SOURCES: Congressional Budget Office; Department of Labor, Bureau of Labor Statistics.

a. Consumer price index for all urban consumers (CPI-U) less food, energy, and used cars.

b. CPI-U.

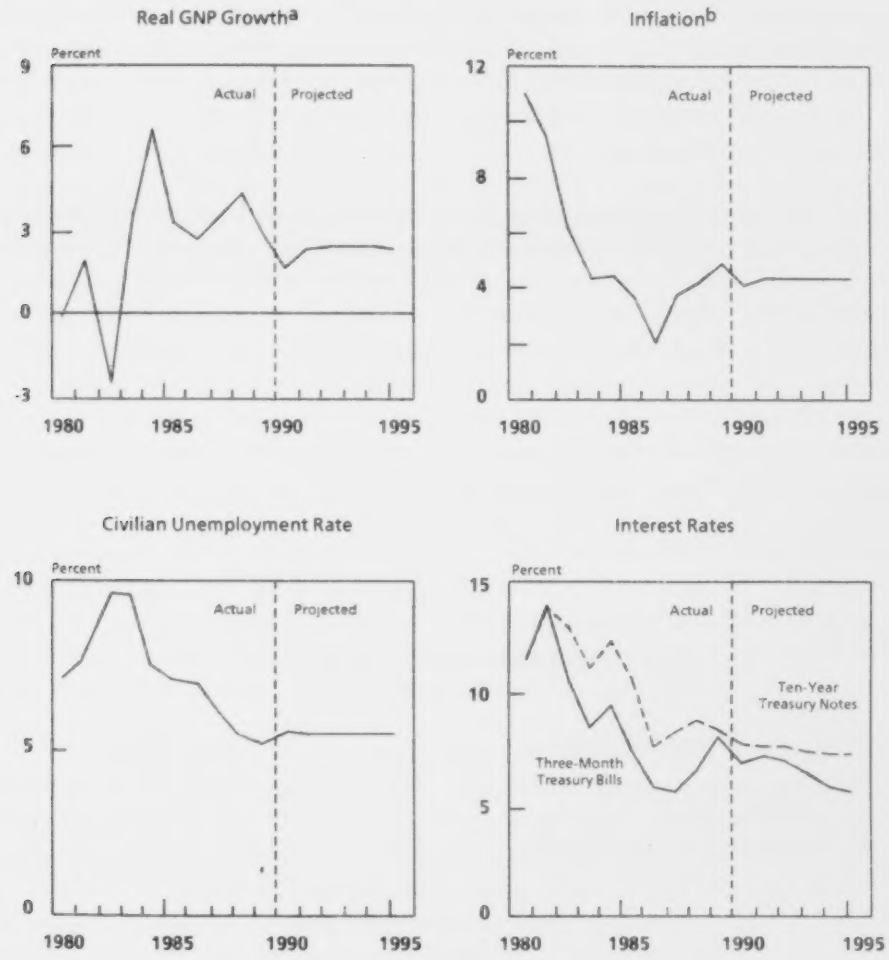
recent economic developments and specific policy assumptions for the next two years; and a mechanical medium-run projection for 1992 through 1995, which is based only on historical trends. The main features of the forecast and projection are shown in Figure I-6 and Table I-2.

The Forecast for 1990 and 1991

CBO forecasts that the U.S. economy will avoid a recession during 1990 and 1991, partly because the Federal Reserve is expected to encourage lower interest rates for most of this year. Real GNP is expected to grow 1.8 percent on a fourth-quarter-to-fourth-quarter basis in 1990, following an estimated 2.5 percent increase in 1989 (2 percent when adjusted for the effects of the 1988 drought). Lower interest rates in 1990 should contribute to slightly faster growth of 2.5 percent in 1991. This higher growth, in turn, should lead to higher short-term interest rates in 1991 as the Federal Reserve attempts to head off mounting inflationary pressures. These higher interest rates are likely to narrow the spread between U.S. and foreign interest rates and contribute to a slower rate of depreciation--on the order of 5 percent--in the real U.S. dollar exchange rate next year; the real exchange rate for this year is expected to average close to its early January level. Continued high resource use plus faster inflation in import prices are likely to balance moderately slower growth in unit labor costs and keep underlying inflation close to its 1989 rate for the next two years.

Factors Affecting the Outlook for Interest Rates. Changes in interest rates over the next two years, shown in Table I-2, reflect three factors: monetary policy, the effect of slow economic growth on credit demands, and fiscal policy. While the slight tightening of fiscal policy assumed in the economic forecast will help to lower interest rates, the overall effects of weaker credit demands and monetary policy will steer movements in interest rates. Changes in expectations of inflation--an important component of long-term interest rates--are not anticipated to be an important factor in determining changes in these rates.

Figure I-6.
The Economic Forecast and Projection



SOURCES: Congressional Budget Office; Department of Commerce, Bureau of Economic Analysis; Federal Reserve Board.

a. Real GNP growth for 1989 is an estimated value.

b. Consumer price index for all urban consumers (CPI-U) from January 1983 to present; before that time, the series incorporates a measure of homeownership conceptually similar to that of the current CPI-U.

The slowing of economic growth during 1989 has already led the Federal Reserve to reduce short-term interest rates. The CBO forecast assumes that rates will continue to fall as long as growth remains weak, but in 1991, when growth should pick up, the Federal Reserve is expected to allow short-term interest rates to rise in order to maintain some unused capacity in the economy and avoid the reemergence of inflationary pressures.

The Composition of Real Gross Output. Past and prospective economic policy actions in the United States and in other industrialized countries should continue the recent shift in the composition of U.S. real gross output away from domestic consumption and toward private domestic fixed investment and net exports.

TABLE I-2. THE CBO FORECAST FOR 1990 AND 1991

	Actual 1988	Estimated 1989	Forecast 1990	Forecast 1991
Fourth Quarter to Fourth Quarter (Percentage change)				
Nominal Gross National Product	7.5	6.5	5.9	6.6
Real GNP	3.4	2.5	1.8	2.5
Drought-Adjusted GNP[a]	4.0	2.0	1.8	2.5
Implicit GNP Deflator	4.0	3.9	4.1	4.0
Fixed-Weighted GNP Price Index	4.5	4.1	4.3	4.3
CPI-U[b]	4.3	4.6	4.1	4.4
Calendar-Year Averages (Percent)				
Civilian Unemployment Rate	5.5	5.3	5.6	5.5
Three-Month Treasury Bill Rate	6.7	8.1	6.9	7.2
Ten-Year Government Note Rate	8.8	8.5	7.8	7.7

SOURCES: Congressional Budget Office; Department of Commerce, Bureau of Economic Analysis; Department of Labor, Bureau of Labor Statistics; Federal Reserve Board.

a. Excludes the effect of the 1988 drought on real GNP.

b. Consumer price index for all urban consumers.

Both components of real domestic consumption--personal consumption expenditures and government purchases of goods and services--are likely to fall as a share of real GNP. The share of personal consumption expenditures in real GNP is expected to decline slightly from its levels of the past few years as consumers reduce the growth of spending in response to weak income growth. The spending cuts incorporated in the 1989 Reconciliation Act plus additional cuts assumed for fiscal year 1991 reduce the share of federal government purchases of goods and services in real output. The share of real state and local government spending is assumed to remain fairly steady over the forecast horizon.

The shares of both components of real gross private domestic fixed investment--real business fixed investment and real residential investment--are expected to rise over the next two years, while the share of real business inventory investment should change little on balance over the next two years. Recent declines in U.S. interest rates plus additional drops expected this year are anticipated to raise the share of gross business fixed investment in real GNP by about four-tenths of a percentage point by 1991. Similarly, the share in real GNP of expenditures for residential construction should also rise slightly in both years as a result of lower mortgage interest rates expected this year and the rebuilding after Hurricane Hugo.

The recent depreciation in the real exchange value of the dollar, combined with additional expected depreciation of about 5 percent in 1991, should raise the share of exports in real GNP by about one-half of a percentage point by 1991. Despite a substantial slowdown in the growth of real imports, imports as a share of real GNP are expected to rise slightly less, by almost four-tenths of a percentage point by 1991. Taken together, the changes in the shares of exports and imports indicate that real net exports will increase only modestly over the next two years.

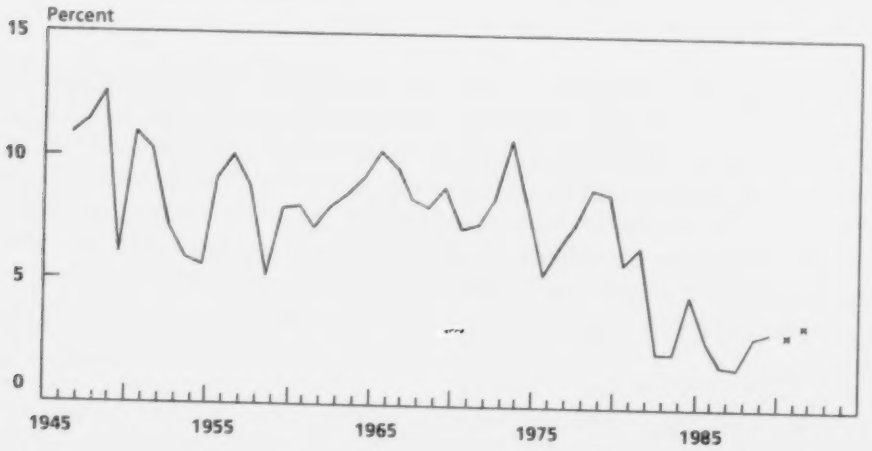
Net National Saving. The net national saving rate should change only slightly in 1990 and 1991 (see Figure I-7). Net national saving is the amount of current output that is not consumed or used to replace worn-out capital; by definition, the net national saving rate is the share of net private domestic investment plus net exports in net national product (all expressed at current prices). Net national saving

can be used to reduce capital inflows or expand the capital stock, thereby improving the prospects for raising U.S. living standards.

In 1990, lower private saving is expected to offset an increase in federal government saving (that is, a lower federal deficit); consequently, the net national saving rate changes little. In 1991, however, faster growth in income combined with further assumed cuts in the federal deficit should bring about a slight increase in the net national saving rate. Nevertheless, even if all of this improvement comes to pass, further cuts in the federal deficit will still be needed if the net national saving rate is to be brought up to levels typical of mature stages of past economic expansions.

One source of such reductions might be the so-called "peace dividend"--the potential decrease in federal defense spending that could result from the easing of East-West tensions. These potential reductions are discussed in Box I-2.

Figure I-7.
Net National Saving Rate



SOURCES: Congressional Budget Office; Department of Commerce, Bureau of Economic Analysis.

NOTE: The net national saving rate is net private domestic investment plus net exports, all as a percentage of net national product. The asterisks indicate values forecast by CBO.

BOX I-2
What the Peace Dividend Means for the U.S. Economy

Signs of easing world tensions raise the prospect of a reduction in federal defense spending on goods and services--the so-called "peace dividend." Most current discussions suggest that reductions in federal spending for defense are likely to be smaller, relative to the economy, than were the cuts in defense spending after both the Korean and Vietnam wars. After these wars, defense spending as a percentage of GNP fell about four percentage points, bringing it to about 10 percent of GNP after the Korean War and about 6 percent after the Vietnam War. A four-percentage-point reduction from fiscal year 1991's projected level of about 5½ percent is far greater than what is likely to be enacted.

The benefits that accrue from reduced defense spending will depend on how the freed resources are used. The potential for lasting economic benefits will be greatest if the funds are channeled into public and private investments, and into reducing the nation's indebtedness to foreigners. Increases in private investment or decreases in net foreign indebtedness are most likely to occur if the federal deficit is brought down. For example, if defense cutbacks lead to a reduction in the deficit equal to 1 percent of GNP, future standards of living may increase by between 1 percent and 7 percent by the middle of the next century.[1]

Because the defense cuts are likely to be relatively small, they would probably have only a modest short-run economic impact. Using any dividend to reduce the budget deficit may temporarily restrain aggregate demand in the United States by reducing the government's demand for goods and services.

Although the illustrative reduction of 1 percent of GNP may seem like a small amount, it is a large cut for the economy to bear in a short period of time. In fact, it could lead to a decline of more than one percentage point in GNP in the short run, as those who lose income from this spending reduction reduce their spending and in turn reduce the incomes of others. The Federal Reserve can offset much of this cumulative decline in spending by encouraging lower interest rates. It must begin to do so before these cuts in spending are made, however, given the lag between the time monetary policy actions occur and the time these actions affect economic activity.

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1. Congressional Budget Office, *The Economic and Budget Outlook: Fiscal Years 1990-1994* (January 1989), p. 94. This study found that a permanent increase in the federal surplus, starting from a balanced budget, to 2 percent of GNP raised consumption per person between 2 percent and 14 percent by the year 2040.

Factors in the Outlook for Inflation. CBO forecasts that the inflation rate will remain roughly constant over the next two years. The underlying rate of inflation should be about 4½ percent on a fourth-quarter-to-fourth-quarter basis in both 1990 and 1991, almost unchanged from 1989. Other price measures, such as the CPI-U and the GNP fixed-weighted price index, are expected to rise between 4 percent and 4½ percent in both 1990 and 1991. These steady rates of inflation hinge on a balancing of two factors tending to raise inflation (continued high resource use and rising inflation of import prices) with one factor tending to lower the inflation rate (faster growth in labor productivity). These three factors are discussed in turn below.

Resource use is expected to remain at a relatively high level over the next two years. Actual real GDP is expected to fall about 0.7 percent below potential real GDP by the fourth quarter of 1990 and maintain that relative gap through the end of 1991. Another measure of resource use--the civilian unemployment rate--rises in the CBO economic forecast from 5.3 percent in the fourth quarter of 1989 to 5.6 percent in the second quarter of 1990, slightly above the NAIRU of about 5½ percent, where it remains through the end of 1991.

Inflation in import prices rises over the next two years in CBO's forecast because of recent and expected further depreciation of the foreign exchange value of the U.S. dollar, as well as higher imported crude oil prices in late 1990 and 1991. Non-oil import prices should rise 4.4 percent on a fourth-quarter-to-fourth-quarter basis in 1990 and 7.2 percent in 1991, after a 0.3 percent decline in 1989, as foreign producers incorporate the depreciation of the dollar into their prices. Although the spot price of imported crude oil increased sharply during December and January in response to unseasonably cold weather, it is apt to weaken in response to more normal weather conditions and slower worldwide economic growth in the first half of 1990.

Unit labor costs are likely to grow more slowly over the next two years as a result of a modest increase in the growth of labor productivity that is related to the rising pattern of real GNP growth expected in late 1990 and 1991. In the CBO forecast, the growth of compensation per hour in the nonfarm business sector during the next two years stays slightly above the 5.4 percent rate (on a fourth-quarter-to-fourth-quarter basis) estimated for 1989, reflecting the continued relatively high demand for labor. After an estimated 0.5 percent increase

in 1989 on a fourth-quarter-to-fourth-quarter basis, productivity in the nonfarm business sector increases at about a 1.0 percent rate in 1990 and a faster 1.6 percent rate in 1991. Because of this faster growth in productivity, the growth of unit labor costs slows from an estimated 4.7 percent in 1989 to 4.6 percent in 1990 and further to 4.0 percent in 1991. This slower increase in unit labor costs over the next two years is likely to shore up corporate profits in late 1990 and 1991.

Comparison with Other Forecasts and Recession Risks. The CBO forecast is quite close to the *Blue Chip* consensus forecast for 1990 and 1991 (see Table I-3). Few of the forecasters in the *Blue Chip* survey expect a recession in 1990, and a recently developed recession index also does not indicate a recession in the next six months. According to the January 10 *Blue Chip* survey, 32 of the 51 forecasters expect economic growth in 1990 to be at least as great as the CBO forecast, and only 7 anticipate growth to be 1 percent or less. The latest value of the experimental recession probability index developed by James Stock and Mark Watson at the National Bureau of Economic Research indicates that the probability of a recession in six months is only 9 percent.[1]

The current CBO forecast for real growth and inflation in 1990 and 1991 is little changed from last summer's outlook.[2] Real GNP growth is now expected to be slightly lower between the end of 1989 and the end of 1990, with somewhat larger downward revisions for inflation and interest rates.

While these revisions in the CBO economic forecast for real growth and inflation have little impact on the baseline budget projections, three developments since last summer do. These developments are the recent revisions in the National Income and Product Accounts, the natural disasters that occurred late in 1989, and strong capital gains realizations. The revisions to the National Income and Product Accounts, which were published in July 1989 but not reflected in the summer CBO forecast, reduced estimates of historical levels of wage and

1. See James Stock and Mark Watson, "New Indexes of Coincident and Leading Economic Indicators" (Harvard University, Kennedy School of Government Discussion Paper #178D, April 1989). Current estimates of the probability of a recession based on this model are issued monthly. The 9 percent probability is based on data through November 1989.

2. Congressional Budget Office, *The Economic and Budget Outlook: An Update* (August 1989).

TABLE I-3. CBO FORECAST FOR 1990 AND 1991, COMPARED WITH THE RECENT *BLUE CHIP* FORECAST

	Estimated 1989	Forecast 1990	Forecast 1991
Fourth Quarter to Fourth Quarter (Percentage change)			
Nominal GNP			
CBO	6.5	5.9	6.6
Blue Chip	6.5	5.9	6.4
Real GNP			
CBO	2.5	1.8	2.5
Blue Chip	2.5	1.8	2.4
Implicit GNP Deflator			
CBO	3.9	4.1	4.0
Blue Chip	3.9	4.0	4.0
CPI-U[a]			
CBO	4.6	4.1	4.4
Blue Chip	4.6	4.2	4.2
Calendar-Year Averages (Percent)			
Civilian Unemployment Rate			
CBO	5.3	5.6	5.5
Blue Chip	5.3	5.6	5.6
Three-Month Treasury Bill Rate			
CBO	8.1	6.9	7.2
Blue Chip	8.1	7.1	7.2
Ten-Year Government Note Rate			
CBO	8.5	7.8	7.7
Blue Chip[b]	8.5	7.7	7.7

SOURCES: Congressional Budget Office; Eggert Economic Enterprises, Inc., *Blue Chip Economic Indicators*, January 10, 1990; Department of Commerce, Bureau of Economic Analysis; Department of Labor, Bureau of Labor Statistics.

NOTE: The CBO forecast does not reflect preliminary 1989 fourth-quarter data for GNP published in January 1990.

a. Consumer price index for all urban consumers.

b. *Blue Chip* does not project a 10-year note rate. The values shown here are based on the *Blue Chip* projection of the Aaa corporate bond rate, adjusted by CBO to reflect the estimated spread between Aaa bonds and 10-year government notes.

salary incomes and of domestic economic profits; these revisions are carried through into the current forecast. Losses from Hurricane Hugo and California's Loma Prieta earthquake amounting to nearly $8 billion (excluding losses of public infrastructure) will depress corporate profits and rental income and hence tax collections in fiscal year 1990. However, strong capital gains realizations, in part related to the strong rise in common stock prices since 1987, raise expected tax receipts in fiscal year 1990. The effect of these revisions and special factors on the budget is discussed further in Chapter II.

Alternative Scenarios. The short-run forecast for 1990 and 1991 embodies what CBO believes to be the most likely outcome: monetary policy geared to avoiding both recession and rising inflation; fiscal policy turning modestly toward restraint; foreign monetary policies generally continuing to move toward restraint; and no major external shocks to the economy, such as large shifts in oil prices or droughts. With this scenario, the CBO forecast can be thought of as envisioning little change from current trends.

Four different scenarios are also possible, based on different mixes of economic growth and inflation:

- Faster economic growth and rising inflation could result from less restrictive monetary and fiscal policies in the United States and abroad, or from an unexpected surge in aggregate demand. This scenario would produce higher growth in output in 1991, but could lead to a sharp slowdown in 1992, especially if rising inflation turned world investors sharply pessimistic on the dollar and they directed capital flows away from the U.S. economy.

- Slower growth in output and falling inflation could stem from more restrictive monetary and fiscal policies or from an unexpected decline in aggregate demand. In this scenario, a mild recession could develop in late 1990 and the inflation rate could fall significantly below current levels in 1991. Economic prospects for 1992 would depend on how quickly the fiscal and monetary authorities turned toward expansive policy actions.

- Faster economic growth and falling inflation--the best outcome--could emerge from a favorable supply shock such as a decline in energy prices or a larger-than-expected increase in the growth of labor productivity (or from credible fiscal and monetary policies that lowered expectations of future real interest rates and inflation). If these outcomes were the result of a supply shock, monetary and fiscal policies could make greater strides toward reducing both the deficit and inflation.

- Slower economic growth and rising inflation--the worst outcome--could stem from an unfavorable supply shock or from fiscal and monetary policies that raised fears of higher future real interest rates and inflation. If these outcomes were the result of a supply shock, the best policymakers could do would be to maintain credible policies to reduce the deficit and inflation.

The Medium-Run Projection

CBO's medium-run projection is purposely agnostic about the chances of recession and rising inflation. This stance reflects the uncertainty beyond 1990 about fiscal and monetary policy both in the United States and abroad, as well as about aggregate demand and supply shocks to the economy.

This agnostic view of the 1992-1995 period is reflected in the assumption that the economy moves to its historical average performance by 1995. In particular, the growth of real GDP is chosen so that the gap between actual and potential real GDP reaches its postwar average level by 1995; the real 90-day Treasury bill rate is assumed at the same time to reach its average since the late 1960s; and the spread between the 10-year Treasury note interest rate and the 90-day Treasury bill rate is also assumed to reach its average since the late 1960s. Because these averages embody periods of both recession and expansion, the medium-run projection includes risks of recession and expansion similar to those observed in the past.

Implications of the Projection. These assumptions for the 1992-1995 period imply steady real GNP growth at about a 2½ percent annual rate, underlying inflation and unemployment rates close to current

levels, and falling nominal and real interest rates over the projection period (see Tables I-4 and I-5). The tax base as a percentage of GNP is projected to fall throughout the projection period. This decline assumes no further drop in the share of corporate profits; an increasing share of income in the form of fringe benefits, most of which are not included in the tax base; slower growth in interest income as a result of slower growth in federal and corporate debt; and lower real interest rates.

Unless further actions are taken to reduce the federal deficit, interest rates during the projection period are likely to be higher than those shown. Because real interest rates are projected to move to their historical average levels, they are consistent with the historical average federal deficit if all else is held constant. Given that the current federal deficit as a percentage of GNP is higher than its historical average, a failure to reduce the federal deficit plus continued low private saving after 1991 would be more consistent with higher real interest rates than those projected.

WHAT IS THE COST OF LOWERING INFLATION?

Influential Members of the Congress and others have recently called for a national effort to eliminate inflation, which means, according to Alan Greenspan, that "expected changes in the average price level are small enough and gradual enough that they do not materially enter business and household financial decisions."[3] (See Box I-3.) Although responsibility for reducing inflation rests with both monetary and fiscal policymakers, the task has fallen almost entirely to the Federal Reserve in recent years. Fiscal policymakers could help lower inflation by reducing the deficit. Unfortunately, in recent years competing political pressures have stalemated any strategies for significant deficit reduction.

As the discussion above has pointed out, the underlying rate of inflation has remained in the 4 percent to 4½ percent range for several years, and CBO and other forecasters expect that it will continue to be

3. Statement by Alan Greenspan, Chairman, Board of Governors of the Federal Reserve System, before the Committee on Banking, Housing, and Urban Affairs, U.S. Senate, February 21, 1989.

in this range. What, however, would be the cost of lowering inflation below this range? As this section points out, barring unexpected improvements in growth in productivity, the cost of lowering inflation further would probably be high because both of the principal strategies for doing so are hard to carry out. Partly for this reason, CBO is not forecasting a significant decline in inflation.

TABLE I-4. MEDIUM-TERM ECONOMIC PROJECTIONS FOR CALENDAR YEARS 1992 THROUGH 1995

	Estimated	Forecast		Projected			
	1989	1990	1991	1992	1993	1994	1995
Nominal GNP (Billions of dollars)	5,235	5,534	5,893	6,279	6,688	7,121	7,579
Nominal GNP (Percentage change)	7.3	5.7	6.5	6.5	6.5	6.5	6.4
Real GNP (Percentage change)	2.9	1.7	2.4	2.5	2.5	2.4	2.4
Implicit GNP Deflator (Percentage change)	4.2	4.0	4.0	4.0	4.0	4.0	4.0
Fixed-Weighted GNP Price Index (Percentage change)	4.5	4.1	4.3	4.3	4.3	4.3	4.3
CPI-U (Percentage change)	4.8	4.0	4.3	4.3	4.3	4.3	4.3
Unemployment Rate (Percent)	5.3	5.6	5.5	5.5	5.5	5.5	5.5
Three-Month Treasury Bill Rate (Percent)	8.1	6.9	7.2	6.9	6.5	6.1	5.8
Ten-Year Government Note Rate (Percent)	8.5	7.8	7.7	7.6	7.5	7.4	7.3
Tax Bases (Percentage of GNP)							
Corporate profits	5.7	5.6	5.7	5.7	5.6	5.7	5.6
Other taxable income	21.6	21.3	21.1	21.1	20.9	20.7	20.5
Wage and salary disbursements	50.2	50.5	50.5	50.5	50.5	50.5	50.6
Total	77.6	77.4	77.3	77.2	77.1	77.0	76.8

SOURCE: Congressional Budget Office.

NOTE: CPI-U is the consumer price index for all urban consumers.

In principle, inflation could be reduced relatively painlessly by lowering inflationary expectations, but this approach may not be feasible under present circumstances. Lowering expectations of inflation means convincing businesses, unions, and others that the Federal Reserve will do whatever is necessary to wring inflation out of the

TABLE I-5. MEDIUM-TERM ECONOMIC PROJECTIONS FOR FISCAL YEARS 1992 THROUGH 1995

	Actual	Forecast		Projected			
	1989	1990	1991	1992	1993	1994	1995
Nominal GNP (Billions of dollars)	5,153	5,456	5,800	6,180	6,583	7,010	7,462
Nominal GNP (Percentage change)	7.5	5.9	6.3	6.6	6.5	6.5	6.4
Real GNP (Percentage change)	3.2	1.8	2.2	2.5	2.5	2.4	2.4
Implicit GNP Deflator (Percentage change)	4.2	4.0	4.0	4.0	4.0	4.0	4.0
Fixed-Weighted GNP Price Index (Percentage change)	4.5	4.1	4.3	4.3	4.3	4.3	4.3
CPI-U (Percentage change)	4.8	4.1	4.3	4.3	4.3	4.3	4.3
Unemployment Rate (Percent)	5.3	5.5	5.6	5.5	5.5	5.5	5.5
Three-Month Treasury Bill Rate (Percent)	8.4	7.1	7.1	7.0	6.6	6.2	5.8
Ten-Year Government Note Rate (Percent)	8.8	7.9	7.7	7.7	7.5	7.4	7.3
Tax Bases (Percentage of GNP)							
Corporate profits	6.1	5.5	5.7	5.7	5.7	5.7	5.7
Other taxable income	21.5	21.4	21.2	21.1	21.0	20.8	20.6
Wage and salary disbursements	50.1	50.5	50.5	50.5	50.5	50.5	50.6
Total	77.7	77.3	77.3	77.3	77.1	77.0	76.8

SOURCE: Congressional Budget Office.

NOTE: CPI-U is the consumer price index for all urban consumers.

system, including raising interest rates enough to cause severe unemployment. Engendering such confidence could reduce inflation without greatly increasing unemployment by convincing companies and workers that they do not need to raise their prices and wages in order to protect themselves from increases in the prices that they have to pay. In practice, however, this strategy might not work, since the Federal Reserve has not recently demonstrated a willingness to inflict hardship on the economy in order to reduce the inflation rate below the relatively moderate current levels.

The remaining option for reducing inflation is the far more painful approach of increasing unemployment significantly by raising interest rates in order to reduce the growth of both wages and prices. This approach forces businesses and workers to lower their price and wage demands by reducing overall demand for goods and services.

The main difficulty with this unemployment strategy is that it involves a great deal of unemployment for the reduction in inflation that it offers. While the underlying technical estimates are quite uncertain, most analysts agree that reducing the inflation rate by one percentage point would be likely to involve two to three "point-years" of unemployment. In other words, it would involve holding unemployment two to three percentage points higher than it would otherwise have been on average for one year. Alternatively, the same result could be achieved by holding unemployment one percentage point higher for two to three years.

If these estimates are correct, reducing today's inflation rate of roughly 4 percent a year to only 1 percent would require six to nine point-years of unemployment. If the job were to be done over only three years, for example, it would require raising unemployment from its present level of roughly $5\frac{1}{2}$ percent to between $7\frac{1}{2}$ percent and $8\frac{1}{2}$ percent on average over the entire three-year period.

Another problem with strategies to bring down inflation by increasing unemployment is that restrictive monetary policies designed to raise unemployment could cause a much more severe economic slowdown than intended because of the potential for widespread bankruptcies among heavily indebted businesses. Interest payments as a share of cash flow are at postwar record levels in the nonfinancial business sector. As a result, many firms might be forced into bankruptcy if

BOX I-3
What Inflation Rate Should Policy Aim For?

Economists widely agree that the inflation rate ought to be permanently lower than it is today for two principal reasons. One is that low inflation promotes a more productive economy. When inflation is high, prices of different goods usually grow at different rates, making it difficult to distinguish changes in the relative prices of goods, which serve as the guide for decisionmaking in a capitalist economy. This difficulty invariably leads to poor decisionmaking throughout the economy. High inflation also encourages unproductive investments whose sole purpose is to protect existing real wealth from inflation rather than create new real wealth. Finally, high inflation contributes to higher debt-equity ratios in the private sector because nominal interest payments are tax-deductible; high debt-equity ratios in turn increase the chances of defaults and business failures.

A second reason for suggesting that a low inflation rate ought to be a social goal is that high and variable inflation distorts the distribution of real income. Although people attempt to shield themselves from inflation with cost-of-living adjustments to their wages and salaries and inflation premiums in interest rates, inflation will most likely turn out to be different from what they expect. When expectations of inflation are incorrect, inflation imposes arbitrary distortions in the distribution of real income among the population. Some people feel cheated, and people living on fixed incomes suffer a reduction in their standards of living.

Although most economists agree that low and steady inflation is desirable, they do not agree on what the desired low level of inflation should be. Some economists argue that policy should aim for a zero rate of inflation. With zero rates of inflation, an increase in the price of one good would be offset by a decrease in the prices of one or more other goods, leaving the overall price level constant.

Other economists argue that policy should aim for an inflation rate between zero and 2 percent. They argue that inflation rates in this range have been associated with good economic performance both in other countries, like Japan, and in earlier periods of U.S. history. During the 1950s and 1960s, for example, the annual inflation rate in the United States generally varied between 1 percent and 2 percent, the annual growth of labor productivity in the nonfarm business sector averaged about 2½ percent, and the share of real net output devoted to net business fixed investment was close to or above its postwar average value. In contrast, during the 1980s, the annual inflation rate varied narrowly around 4½ percent, the annual growth of labor productivity in the nonfarm business sector averaged only about 1¼ percent, and investment as a share of real net output was persistently below its postwar average value.

Another reason why policy may not need to reduce inflation all the way to zero is that government statisticians cannot perfectly separate changes in market prices stemming from improvements in the quality of goods and services (which should not be counted as inflation) from those that represent genuine cost increases. Thus, if official measures of prices were to show zero inflation, true inflation probably would be negative rather than zero.

A final reason why some economists argue that policy should aim for an inflation rate between zero and 2 percent and not zero percent is that the extra cost in point-years of unemployment required to reduce the rate of inflation to zero would probably be considerably greater than the benefits that would eventually accrue.

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interest rates were to rise further or if cash flow were to fall because of a tighter monetary policy and the economic slowdown that it could bring about.[4] Widespread bankruptcies could increase unemployment further and create a severe economic downturn. If the Federal Reserve fears that such a severe recession is possible, it might be less willing than otherwise to tighten its policy to reduce inflation.

Conclusion

This pessimistic outlook regarding the cost of eliminating inflation could, of course, turn out to be wrong if growth in productivity accelerates faster than is currently anticipated, or if there are other unexpectedly favorable developments. Still, such good luck cannot be counted on, and few policies are available that could bring it about. Barring such outcomes, it will be difficult to reduce inflation much below current levels unless unemployment becomes substantially higher than CBO expects.

4. These concerns are spelled out in detail in Benjamin M. Friedman, "Implications of Corporate Indebtedness for Monetary Policy" (Harvard University, processed, September 1989).

CHAPTER II

THE BUDGET OUTLOOK

The federal government is expected to run a deficit of $138 billion in 1990, a modest drop from the $150 billion to $155 billion deficits of the past three years. During the 1980s, the federal deficit seemed to stall in place twice: first in the $200 billion to $220 billion range between 1983 and 1986, and then at about $150 billion in the remaining years of the decade. In the absence of further policy changes, the Congressional Budget Office foresees another plateau. Under current taxing and spending policies, the projected deficits will remain stuck in the $130 billion to $140 billion range from 1990 through 1994, finally dipping to $118 billion in 1995. Conforming to recent legislation, these projected deficits exclude significant transactions that take place outside the budget: about $30 billion in borrowing to help resolve failed savings and loan institutions in 1990 and 1991, and much smaller net outlays by the Postal Service.

The baseline deficits stay well above the levels established by the Balanced Budget Act (commonly known as Gramm-Rudman-Hollings), which sets steadily tighter deficit targets that culminate in a balanced budget by 1993. Because the deficit under current policies is nearly flat even as the targets shrink, the gap between the two widens. The baseline deficit exceeds the target by $74 billion in 1991, the budget year that policymakers will address over the next nine months. By 1993--the last year currently covered by the act--the baseline deficit totals $141 billion, while the law calls for a balanced budget.

CBO last published its deficit projections in August. The new projections differ little, on balance, from last summer's estimates. The Congress returned in September to finish work on the 1990 budget. Major legislation enacted during the next 11 weeks included passage of all appropriation bills, the repeal of catastrophic illness benefits and the associated taxes and premiums under Medicare, and enactment of an omnibus reconciliation bill to reduce the deficit. Because little of this legislation was completed by mid-October, across-the-board spending reductions under the Balanced Budget Act took effect at that time.

A portion of these cuts was retained in the Congress's final budgetary package. On balance, Congressional action cut the deficit modestly in all years. Other changes in the budgetary outlook are mixed, as changes in the economic outlook contribute to lower deficits but technical changes worsen the outlook.

This chapter summarizes the outlook for the federal budget under current policies. The baseline revenue and spending projections are based on the economic forecast and assumptions outlined in Chapter I. Following a brief explanation of the baseline concept, the discussion turns to the latest five-year projections. The projected deficits are compared with the targets set in the Balanced Budget Act, and a special section tells how the act will shape action on the 1991 budget in coming months. Two topics currently attracting spirited interest--spending outside the budget and the role of federal government trust funds--are addressed. Finally, the importance of economic assumptions is illustrated by rules of thumb that summarize the budget's sensitivity to key economic variables such as real growth, inflation, and interest rates. Chapter III contains more detailed descriptions of the baseline spending, revenue, and credit projections.

THE BASELINE CONCEPT

Baseline budget projections show the likely course of federal revenues and spending if policies remain unchanged. Except in the very short run, the baseline is not a prediction of budget outcomes, because many changes in budget policies are bound to occur. But the baseline illustrates the consequences of current policies and serves as a benchmark for measuring the budgetary effects of proposed changes in tax and spending laws.

Baseline Assumptions

The baseline projections generally follow rules set out in the Balanced Budget Act. The revenue projections incorporate current tax laws, including any increases or phase-outs contained in current law. However, as specified in the act, excise taxes dedicated to trust funds are assumed to be continued beyond their currently scheduled expirations. Similarly, the baseline reflects the likely path of spending for entitle-

ments under current laws. These programs (of which Social Security and Medicare are by far the biggest and best known) do not require annual decisions on funding levels; instead, they continue making payments to eligible participants until the Congress changes the underlying laws. Farm price supports, an entitlement program due for reauthorization in 1990, are continued in the baseline at current rates, as the Balanced Budget Act specifies.

Unlike entitlement spending, many federal government programs rely for their funding on annual Congressional action through the appropriation process. Such programs include nearly the entire defense budget, as well as nondefense activities as varied as space exploration, the administration of justice, veterans' medical care, and infrastructure spending. The baseline assumes no real growth in these programs (termed discretionary programs), adjusting them only to keep pace with inflation of about 4 percent a year. Projections of offsetting receipts (such as receipts from Medicare premiums and oil leases) are estimated consistent with current laws and policies, and net interest outlays are determined by the baseline deficits and the assumed interest rates.

Using the Balanced Budget Act's specifications for the five-year projections enables quick and easy comparison of the deficit projections with the targets. For this reason, although CBO has generally argued that all federal programs ought to be reflected in the budget, the baseline projections exclude from outlay and deficit totals the net spending of the Postal Service fund and certain borrowing related to thrift institutions, in accordance with laws passed last year. Further discussion of baseline concepts is contained in Appendix B.

What the Baseline Is Not

For many years, CBO and the Administration published baseline projections that embodied contrasting interpretations of current policies. For example, the estimates often built in extra funding in appropriated accounts to reflect expensive projects planned by agencies, most notably a continued buildup in defense. The result was a proliferation of baselines, and resulting controversy over whether proposed policies represented cuts or increases relative to the baseline.

The Balanced Budget Act addressed this confusion, resolving many areas of disagreement and setting uniform rules for projecting all discretionary accounts. CBO follows these rules. Because these rules specify that assumed growth in appropriated programs must reflect inflation alone, the baseline does not contain enough funds for some projects that are now in their early stages. For example, constructing a manned space station or a superconducting supercollider, boosting economic assistance to aid the newly democratizing countries of Eastern Europe, or extending expiring subsidized housing contracts could require increases beyond inflation. None is fully incorporated in the baseline; funding them would require increasing appropriations or diverting funds from other programs. By the same token, the baseline does not contain declines in spending for certain programs that are virtually certain to need less money after 1990--most notably the decennial census and disaster assistance, which was unusually costly this year in the wake of Hurricane Hugo and California's Loma Prieta earthquake. Nor does the baseline assume declines in defense spending, though many expect that reduced superpower tensions will yield such a "peace dividend."

Even though the Congress wrote the specifications for the Balanced Budget Act baseline, it has sometimes found them excessively rigid and has chosen to use a slightly different baseline for its annual budget deliberations, incorporating selected spending increases or declines. (Last year, for example, in debating the 1990 budget, the Congress used a baseline that included enough funding for the 1990 census and for this year's subsidized housing renewals.) Appendix B presents such an alternative programmatic baseline for 1991 through 1995.

THE FIVE-YEAR BUDGET OUTLOOK UNDER CURRENT POLICIES

Under the baseline assumptions just described, and under the economic assumptions discussed in Chapter I, the federal deficit is projected to change little through 1995. As shown in Table II-1, the baseline deficit stays roughly at today's level through 1993, finally declining to $118 billion in 1995. Because the economy is assumed to turn in steady growth during this period, the deficit, while flat in dollar terms, declines gradually as a percentage of gross national product. This gradual decline is abetted by the tendency of outlays--under

baseline assumptions--to grow less rapidly than the economy, while revenues more closely track the growth of GNP. Relative to GNP, the deficit shrinks by about a third--from 2.5 percent at present to 1.6 percent by 1995.

In 1989, the deficit was $152 billion--lower than the $161 billion projected by CBO last August. The entire discrepancy occurred on the outlay side; total revenues exactly matched CBO's projection. The lower-than-expected 1989 deficit, though, has not led CBO to reduce its projections of future deficits. In fact, the largest single discrepancy--unexpectedly low spending by the Resolution Trust Corporation on failed savings and loans in August and September--was made up in the

TABLE II-1. CBO BASELINE REVENUES, OUTLAYS, DEFICIT, AND DEBT (By fiscal year)

	Actual 1989	Base 1990	Projected 1991	1992	1993	1994	1995
In Billions of Dollars							
Revenues	991	1,067	1,137	1,204	1,277	1,355	1,438
Outlays	1,143	1,205	1,275	1,339	1,418	1,484	1,555
Deficit	152	138	138	135	141	130	118
Deficit Targets	136	100	64	28	0	a	a
Debt Held by the Public	2,189	2,324	2,460	2,593	2,734	2,862	2,979
As a Percentage of GNP							
Revenues	19.2	19.6	19.6	19.5	19.4	19.3	19.3
Outlays	22.2	22.1	22.0	21.7	21.5	21.2	20.8
Deficit	2.9	2.5	2.4	2.2	2.1	1.8	1.6
Debt Held by the Public	42.5	42.6	42.4	42.0	41.5	40.8	39.9
Reference: GNP (In billions of dollars)	5,153	5,456	5,800	6,180	6,583	7,010	7,462

SOURCE: Congressional Budget Office.

NOTE: The budget figures include Social Security, which is off-budget but is counted for purposes of the Balanced Budget Act targets. For comparability with the targets, the projections exclude the Postal Service, which is also off-budget.

a. The Balanced Budget Act established targets for 1988 through 1993.

first weeks of fiscal year 1990, boosting this year's deficit. This and other changes since last August's projections are summarized in Table II-2.

Changes in the Budget Estimates Since August

Changes in the budget projections since last August can be attributed to three causes: recently enacted legislation, changes resulting from the revised economic assumptions, and other revisions stemming from CBO's comprehensive review of federal spending and revenues (termed technical changes). As Table II-2 shows, recent legislation has reduced future deficits, though only modestly. Economic and technical revisions together roughly offset these legislative savings. As a result, the deficit outlook is not greatly changed since CBO's last report.

Legislation Enacted Since August. Budgetary legislation enacted since last August principally consists of the 13 regular appropriation bills, the repeal of catastrophic health insurance for the elderly, and an omnibus deficit-reducing measure known as the reconciliation bill. Other measures had much smaller budgetary effects. Many areas of spending and revenues were affected by more than one piece of legislation. (For example, a scaled-back sequestration reduced the funding enacted in appropriation bills for many discretionary accounts.) Details of last fall's legislative actions affecting the budget are shown in Table II-3.

Fiscal year 1990 marked only the second time that across-the-board cutbacks in spending under the Balanced Budget Act took effect on a permanent basis. The only previous occasion was in 1986, marking the act's debut, when sequestration cut outlays by $11.7 billion. A final sequestration order was issued for 1988, but was later rescinded upon passage of a more ambitious deficit reduction package.

The Office of Management and Budget (OMB) issued its preliminary sequestration report for fiscal year 1990 in August, and its final report on October 16, 1989. A final sequestration order from the President followed shortly, cutting an estimated $16.1 billion from spending. (Under the Balanced Budget Act, CBO provides advisory estimates. OMB alone has authority for projecting deficits and determin-

TABLE II-2. CHANGES IN CBO BASELINE ESTIMATES SINCE AUGUST (By fiscal year, in billions of dollars)

	1990	1991	1992	1993	1994
Revenues					
August 1989 Estimate	1,071	1,138	1,207	1,287	1,372
Enacted Legislation	-1	-2	-2	-1	a
Economic Reestimates	-2	1	a	-6	-13
Technical Reestimates	-1	a	-1	-4	-4
Total	-4	a	-3	-10	-18
Current Estimate	1,067	1,137	1,204	1,277	1,355
Outlays					
August 1989 Estimate	1,212	1,282	1,348	1,430	1,500
Enacted Legislation	-13	-7	-10	-10	-13
Economic Reestimates					
Interest rates	-2	-3	-2	-2	-3
All other	-1	-5	-8	-12	-16
Subtotal	-3	-8	-10	-14	-19
Technical Reestimates					
Deposit insurance	8	2	2	-2	-3
Medicaid and Medicare	1	2	4	5	7
Other major benefits	1	2	3	3	4
Net interest	2	1	1	3	4
All other	-2	1	2	3	3
Subtotal	10	9	11	12	16
Total	-7	-7	-9	-12	-16
Current Estimate	1,205	1,275	1,339	1,418	1,484
Deficit					
August 1989 Estimate	141	144	141	143	128
Enacted Legislation	-12	-5	-8	-9	-12
Economic Reestimates	-1	-9	-10	-8	-6
Technical Reestimates	11	8	13	16	20
Total	-3	-6	-5	-2	2
Current Estimate	138	138	135	141	130

SOURCE: Congressional Budget Office.

NOTE: The budget figures include Social Security, which is off-budget but is counted for purposes of the Balanced Budget Act targets. For comparability with the targets, the current estimates also exclude the Postal Service, which was put off-budget by legislation enacted last fall.

a. Less than $500 million.

ing the across-the-board cutbacks, and its estimates of the deficit have almost always been lower than CBO's.) From the start of the fiscal year until mid-December, agencies operated within the constraints

TABLE II-3. EFFECTS OF RECENT LEGISLATION ON CBO BASELINE DEFICIT (By fiscal year, in billions of dollars)

	1990	1991	1992	1993	1994
Appropriations					
Defense	-3	-4	-5	-6	-6
Nondefense discretionary	1[a]	9	11	12	12
Subtotal	-1	4	6	6	6
Sequestration					
Defense	-1	-2	-2	-2	-2
Nondefense discretionary	-1	-2	-2	-2	-2
Entitlements	-1	b	0	0	0
Subtotal	-3	-4	-4	-4	-4
Reconciliation (Other than Sequestration)					
Accounting and timing changes	-4	1	-1	b	b
Medicare	-2	-2	-2	-2	-2
Other outlays	b	b	1	1	1
Revenues[c]	-5	-5	-4	-6	-8
Subtotal	-11	-5	-7	-7	-8
Repeal of Catastrophic Health Insurance					
Medicare and Medicaid	-2	-6	-8	-9	-10
Revenues	7	7	7	8	8
Subtotal	5	1	-2	-2	-2
Other Legislation	-1	-1	-1	-1	-1
Debt Service	b	-1	-1	-2	-3
Total Deficit Reduction	-12	-5	-8	-9	-12

SOURCE: Congressional Budget Office.

a. Includes $1.8 billion in offsetting receipts from Foreign Military Sales refinancing.

b. Less than $500 million.

c. Revenue increases are shown with a negative sign because they reduce the deficit.

spelled out by the President's order. Ultimately, when the Congress agreed on several other deficit reduction measures, it elected to scale back the sequestration to about one-third its initial size.

These sequestration-related events coincided with a period of intense legislative activity. Between early September and mid-November, the Congress passed all 13 of its regular appropriation bills. As shown in Table II-3, the appropriations cut about $1 billion from the 1990 deficit, but increased baseline spending by $4 billion to $6 billion a year thereafter. Growth in the defense budget was held below the rate of inflation, but nondefense discretionary appropriations, in the aggregate, were increased--notably in space, disaster relief, the census, education, and drug prevention and enforcement. The increases in nondefense appropriations were partly offset by language permitting the prepayment of additional Foreign Military Sales loans, a change that is expected to generate $1.8 billion in offsetting receipts in 1990.

These appropriations, in turn, were effectively modified by the Congress's decision to leave part of the October sequestration order in place. Full sequestration would have cut $16.1 billion in outlays. The partial sequestration was set at 130/365 of this amount, or $5.7 billion, translating into reductions of 1.5 percent for defense and 1.4 percent for nondefense programs. Under the Balanced Budget Act, however, the sequestration amounts are adjusted when an appropriation bill is enacted after the date of the sequestration order--a sequence that describes 12 of the 13 regular appropriation bills for 1990. If the appropriation for a budget account is below the baseline that was used in the OMB report, the difference is subtracted from the amount of the sequestration (although the sequestration cannot be reduced below zero). Such adjustments shrink the sequestration savings from the stated $5.7 billion to about $3.5 billion in 1990.

This scaled-back sequestration was one element of the Omnibus Budget Reconciliation Act of 1989, which contained many other provisions affecting the budget. Revenue provisions, on balance, raise receipts by $5.4 billion in 1990, $4.7 billion in 1991, less in 1992, but growing amounts thereafter (amounting to $7.6 billion in 1994). The bill extends 10 expiring tax preferences, among them the exclusion for employer-paid educational assistance, the credit for low-income housing, and the credit for research and experimentation. Most of the 10 provisions have been extended through September 30, 1990. Several

employee benefit provisions are also included in the Reconciliation Act, notably repeal of the partial exclusion from corporate income tax of interest earned on loans to certain employee stock ownership plans (ESOPs). Excise taxes were increased, and three were newly imposed. The new taxes are a departure tax on passengers of commercial ships, a tax on ozone-depleting chemicals, and a per-barrel levy on petroleum and petroleum products to fund the cleanup of oil spills. The Reconciliation Act delayed until January 1991 the reduction in airline ticket tax rates (the chief source of income for the Airport and Airway Trust Fund), boosting revenues in fiscal years 1990 and 1991. A speedup in employers' remittance of withheld income and payroll taxes was also included. Corporate income tax changes were made in the areas of securities taxation, foreign source income, the alternative minimum tax, and like-kind exchanges.

On the spending side of the budget, the major savings contained in the reconciliation bill affected Medicare programs, principally through reduced reimbursements for certain services that were deemed overpriced. New and increased user fees were enacted. The bill contained modest increases in several social programs, including Medicaid and social services grants. Finally, the reconciliation law included several spending provisions that reduced deficits only temporarily or on paper, as discussed below.

The Medicare Catastrophic Coverage Repeal Act eliminated both the benefits and the financing that would have occurred under 1988's expansions in Medicare. The repeal occurred little more than a year after initial passage of the expansions, and a few months before many important provisions of the law were scheduled to take effect. As a result of repeal, federal government taxes will be lower by $7 billion to $8 billion a year; the government will not collect some premiums that would have been paid; and Medicare benefits will be smaller. Repeal adds to the cost of the government's Medicaid program, which must pay for some people who would otherwise have been covered under the Medicare expansions. On balance, repealing catastrophic health insurance benefits raised the deficit by $5 billion in 1990 and $1 billion in 1991 but reduced the deficit somewhat thereafter.

Other budgetary measures include the payment of compensation (beginning in 1991) to Japanese-Americans interned during World War II, reauthorization of federal flood insurance, modest expansions

in child nutrition programs, and changes in the budgetary treatment of loan sales by the Department of Veterans Affairs.

The deficit reductions achieved in recent legislation shrink after 1990, as shown in Table II-3. A major reason is that some reductions were transitory or accounting in nature. Of the 1990 outlay reductions, $5 billion can easily be placed in this category. These reductions include removing the net outlays of the Postal Service and the Farm Credit System Financial Assistance Corporation (FAC) from budget totals, stretching out lump-sum payments to civil service retirees, and changing the budgetary treatment of veterans' loan sales. Together, these actions shave $3.7 billion from the deficit in 1990; they are shown as accounting and timing changes in Table II-3. Permitting additional prepayments of Foreign Military Sales loans adds another $1.8 billion of nonrecurring savings in 1990, by accelerating payments that the government would have received in future years. On the revenue side, about $2.9 billion of the 1990 increase derives from moving up collection deadlines without actually increasing taxpayers' liabilities to the government. These provisions include the two-day acceleration in employers' deposits of income and payroll taxes withheld from employees' paychecks, and the speedups in the payments of the airline passenger ticket tax and the gasoline excise tax.

Changes in the Economic Assumptions. Projections of federal outlays and revenues are sensitive to the economic assumptions employed. Changes in the economic outlook since August have led CBO to reduce its deficit estimate by a modest $1 billion in 1990, and by an average of $8 billion each year in the 1991-1994 period (see Table II-2).

The effects of new economic assumptions on the baseline revenue projections are complex. On balance, the effect is to reduce revenues by $2 billion in 1990, to increase them by $1 billion in 1991, and to reduce them by amounts that grow to $13 billion by 1994.

Personal taxes--individual income taxes and payroll taxes--are higher, the result of two offsetting revisions. Wages and salaries are lower than projected in August, by amounts that range from $10 billion in calendar year 1990 to $44 billion in 1994; personal business income is also lower. These revisions reduce income and payroll tax receipts by $3 billion to $4 billion in 1990 through 1992, and by about $7

billion in 1994. But this reduction is more than offset by projected increases in taxes paid on capital gains.

Revenues from corporate profit taxes are lower by $7 billion in 1990, by $4 billion in 1991, and by $13 billion in 1994 because of lower profits. The corporate tax base has been reduced since August by $10 billion in calendar years 1990 and 1991 and by about $50 billion in 1994. The revision reflects both the lower level of nominal GNP and the smaller share of GNP that is earned in the form of taxable profits.

Other economic changes, on balance, result in reductions of $1 billion to $3 billion per year in baseline revenues. The chief explanation lies in lower imports, which reduce projected collections from customs duties.

The spending projections are lowered in all years under the new economic assumptions, by amounts that climb steadily from $3 billion in 1990 to $8 billion in 1991 and $19 billion in 1994. These reductions stem from relatively small, downward changes in CBO's assumptions about interest rates and inflation--changes that affect the projections for nearly every category of spending. Changes resulting from interest rates dominate in the short run, because the volume of Treasury financing and refinancing is so large. Reductions in spending for benefit programs and discretionary programs take on added importance beginning in 1991, because these programs have a delayed response to lower inflation. Viewing the revenue and outlay changes together, the changes in the economic outlook leave the 1990 deficit virtually unchanged and modestly reduce deficits in 1991 through 1994.

Other Changes. Other changes--termed technical reestimates--have worsened the deficit outlook enough to outweigh the effects of changes in the economic outlook. Higher spending for deposit insurance is by far the biggest of these changes in 1990, exceeding previous projections by $8 billion. About half of the 1990 revision stems from the Resolution Trust Corporation's (RTC's) failure to spend a large portion of the funds that became available to it late last summer to resolve troubled savings and loans. CBO had correctly anticipated that the RTC would not spend all of the $20 billion provided by the Treasury in 1989, and expected some spillover into 1990. In fact, the RTC spent even less in 1989 than CBO expected, resulting in a carryover twice as large as the $5 billion anticipated by CBO.

A further increase in deposit insurance spending in 1990 stems from the government's current plan to skip a final offering of securities by the Financing Corporation (FICO), an off-budget enterprise created in 1987 to borrow funds for use in savings and loan case resolutions. (Had the FICO borrowing gone ahead, the proceeds--under the rules governing such entities--would have counted as a negative outlay.) Other reestimates to deposit insurance reflect the likelihood that the government will be forced to liquidate insolvent thrift institutions, rather than arrange sales or mergers of institutions. While liquidation is less costly than allowing unhealthy institutions to stay open and plunge deeper into insolvency, it is also more cash-intensive in the short term, since it requires paying off insured depositors immediately while sales proceeds may take months or years to materialize.

Other technical reestimates are varied, but join to boost outlays, reduce revenues, and raise the deficit. Technical changes affecting revenues are small and result from several offsetting factors. Estimates of the effects of selected tax reform provisions have been updated using newly available information. These revisions result in reductions of about $3 billion to $6 billion in the later years of the projection period. In addition, payroll taxes have been reduced by $1 billion in 1990 and by $2 billion annually thereafter. This reduction reflects new information confirming that, since 1987, a lower-than-expected fraction of total wages has been covered by the Social Security and unemployment insurance payroll tax bases. Partly offsetting these changes, estate and gift taxes have been raised by $0.5 billion in 1990 and by $1.5 billion in 1994, to reflect the persistent strength in collections over the last several years. Other technical changes are minor.

Technical revisions boost Medicaid (and, to a lesser extent, Medicare) outlays in the new estimates. Medicaid outlays were slightly higher than expected in 1989, and CBO's revisions also reflect the impact of renegotiations by nursing home operators and the high projections that state Medicaid officials are currently submitting. A number of other major benefit programs are up, generally reflecting growth in caseloads or average benefits that slightly exceeds previous expectations. Technical changes raise net interest costs, reflecting (in 1990) the unusually large share of borrowing that is occurring early in the year and, in later years, the added debt service costs implied by other technical reestimates.

When all of these changes are summed up, they point to relatively little change in the deficit outlook. As policymakers turn their attention to the budget for 1991 and beyond, they will find the budget picture little changed from that portrayed by CBO last August.

The Balanced Budget Act and the Projections

Because the deficit targets established in the Balanced Budget Act decline each year, the baseline deficits exceed the targets by ever-widening amounts. For 1991, the baseline deficit of $138 billion exceeds the target by $74 billion. In 1992, the deficit lies $107 billion above the target, and in 1993--the year in which the budget is supposed to be balanced--the baseline deficit is $141 billion.

The Balanced Budget Act calls for automatic, across-the-board cutbacks in spending programs if projections at the start of the fiscal year indicate that the targets appear unlikely to be met. Clearly, sequestration would be very large, amounting to $74 billion in 1991 if CBO's current estimates were used. With automatic deficit reductions occurring exclusively on the spending side of the budget, and with many programs exempt from sequestration (for example, Social Security and many other benefit programs) or impossible to reduce significantly in the short run (net interest and outlays from prior commitments), remaining outlays would bear the burden of budgetary stringency. But in fact, even without intervening deficit reductions, sequestration is unlikely to be as large as CBO's preview suggests. The Balanced Budget Act assigns final responsibility for estimating the base deficit and across-the-board cutbacks to the Office of Management and Budget, whose deficit projections are nearly always lower than CBO's. Box II-1 discusses how the Balanced Budget Act's provisions will shape the coming months' debate over the 1991 budget.

SPENDING OUTSIDE THE BUDGET

Following the recommendations of the President's Commission on Budget Concepts in 1967, the United States has emphasized a unified, or comprehensive, budget. The unified budget reflects all revenues and all outlays of the government. A unified budget does not prevent analysts from disaggregating the totals in order to analyze budgetary

BOX II-1
THE BALANCED BUDGET ACT COUNTDOWN FOR 1991

The Balanced Budget and Emergency Deficit Control Act--enacted in 1985 and amended in 1987--sets deficit targets as well as automatic enforcement mechanisms. If the base deficit is estimated by the Administration's Office of Management and Budget (OMB) to exceed the law's targets, the act requires across-the-board cutbacks in spending. For fiscal year 1991, the deficit target is $64 billion. The act allows a $10 billion margin; thus, the expected deficit must exceed $74 billion before the cuts are triggered. The Congress can vote to suspend the act's requirements under certain conditions of slow economic growth, which are not forecast to prevail this year.

If automatic cutbacks occur, the act requires that half come from defense spending and the other half from nondefense outlays. Many programs are exempt, including Social Security, certain programs for low-income beneficiaries, and many other benefit programs. Net interest payments cannot be controlled directly and are thus exempt. The act also limits the cuts in several nonexempt programs, primarily Medicare, Stafford Loans (formerly known as Guaranteed Student Loans), and veterans' medical care. The remaining reductions are achieved by uniform cutbacks, or sequestration, of budgetary resources--that is, by canceling the ability of defense and nondefense agencies to commit some of their funds.

CBO projects that the deficit under current budgetary policies will be $138 billion in 1991, $74 billion above the target of $64 billion. Cutting the deficit by $74 billion wholly through sequestration would require across-the-board reductions of about 19 percent in defense and 28 percent in nondefense, nonexempt programs. If the President chose to exempt military personnel spending, as permitted under the act, sequestration in the remainder of the defense budget would balloon to 31 percent.

Sequestration, however, does not hinge on CBO's estimates. Although the amended act requires CBO to publish advisory reports, final responsibility for estimating the deficit and triggering sequestration rests with the Office of Management and Budget (OMB), an agency whose economic assumptions and technical estimating methods typically join to produce lower deficit forecasts. OMB's estimates would make it easier to preempt a sequestration by enacting alternative deficit reductions, or to shrink the size of automatic cutbacks if they do occur.

Key events under the Balanced Budget Act will occur next August through October, as shown below.

Snapshot date for initial reports	August 15
Initial CBO report	August 20
Initial OMB report and initial sequestration order	August 25
Revised CBO report	October 10
Revised OMB report and final sequestration order	October 15

trends and debate the merits of specific policies. But the role of government in the economy, and the government's demands on credit markets, are best captured by total spending and revenues--not just selected parts.

Progress toward a comprehensive measure of the budget has been steady though not uninterrupted. In the early 1970s, a small number of spending programs (notably the lending activities of the Federal Financing Bank and, later, oil purchases by the Strategic Petroleum Reserve) were moved off-budget. The original Balanced Budget Act, though, brought these programs back within the budgetary fold. The same act required separate presentation of Social Security outlays, revenues, and deficits and labeled them off-budget. But even this decision did not represent a break with the emphasis on the total deficit. The Balanced Budget Act specifically kept the total deficit, including Social Security, as the key measure of the federal government's fiscal imbalance and the starting point for deficit reductions.

There is always a temptation to place some activities outside the budget's scope, and this temptation is especially acute when deficits are large and exceed targets set by law. Last fall's reconciliation measure exempted the Postal Service fund fully from future sequestration, and placed the fund's spending outside the budget totals used for Balanced Budget Act purposes and for Congressional budget deliberations. The Postal Service argued that its inclusion in the budget had hampered its ability to maintain and improve services. Furthermore, removing its net outlays from budget totals was counted as a deficit reduction measure. Nevertheless, the Postal Service will remain very much a part of the government: its employees will participate in government retirement and other benefit programs, it will continue to receive special appropriations for certain categories of mail, and its cash flows will continue to affect the Treasury's need to borrow from the public. Table II-4 shows how the deficit totals shown elsewhere in this report would differ if the Postal Service deficit or surplus were included. The same reconciliation bill reclassified the Farm Credit System Financial Assistance Corporation (FAC) as a government-sponsored enterprise, thereby removing it from budget totals and reducing the reported deficit by an estimated $1.4 billion over the 1990-1992 period.

The Postal Service and the FAC are relatively small holes in the unified budget's coverage. As Table II-4 makes clear, the excluded spending is small when compared with the rest of the budget. More glaring is the exclusion of billions of dollars in borrowing to resolve

TABLE II-4. CBO BASELINE PROJECTIONS FOR SPENDING OUTSIDE THE BUDGET (By fiscal year, in billions of dollars)

	Actual 1989	Base 1990	Projected 1991	1992	1993	1994	1995
Postal Service							
Off-Budget Spending by the Postal Service	a	2	1	-1	1	-1	b
Farm Credit Assistance							
Off-Budget Spending by the Farm Credit System Financial Assistance Corporation (FAC)	a	b	b	b	0	0	0
Off-Budget Borrowing for Deposit Insurance[c]							
Financing Corporation (FICO)	4	0	0	0	0	0	0
Resolution Financing Corporation (REFCORP)	0	20	10	0	0	0	0
Total	4	20	10	0	0	0	0
Adjusted Deficit							
Deficit Including Postal Service, FAC, FICO, and REFCORP	156	161	149	135	142	128	117

SOURCE: Congressional Budget Office.

a. Off-budget treatment of the Postal Service and the FAC takes effect in 1990.

b. Less than $500 million.

c. The spending that is made possible by this borrowing, technically, is reflected in budget totals. However, the funds raised by these off-budget, government-sponsored enterprises are recorded as negative outlays and thus offset the associated spending.

troubled savings and loan institutions. Last year's Financial Institutions Reform, Recovery, and Enforcement Act effectively excluded about $30 billion of deposit insurance spending from budget totals in 1990 and 1991, by having the funds borrowed through a newly chartered, government-sponsored enterprise, the Resolution Financing Corporation (REFCORP).

REFCORP's status as a government-chartered enterprise is critical to the budgetary treatment of its borrowing. Normally, the U.S. Treasury conducts any necessary financing for the government. Treasury borrowing finances the deficit; it does not reduce the deficit. Otherwise, the budget would always be balanced. But because REFCORP is technically private, the funds that it borrows and turns over to the (on-budget) Resolution Trust Corporation count as offsetting collections. These funds offset the associated spending to resolve failed savings and loans. This budgetary treatment was adopted even though many argued that REFCORP is not private in any meaningful sense; it raises funds for a mandatory government function, gives them to the Treasury, and enjoys a Treasury guarantee that the interest on its securities will be paid by the taxpayers if necessary. The credit markets view REFCORP securities as hardly distinguishable from Treasury bonds. Table II-4 shows the larger deficits that would result if the outlays financed by REFCORP as well as by the Financing Corporation (FICO), a similar but smaller-scale entity created in 1987, were included in budgetary totals.

CBO believes that REFCORP is a government entity, that its borrowing is government borrowing, and that the budgetary treatment that has been adopted is inappropriate. CBO testified to this effect last year. At the same time, the heavy spending that the government will incur to resolve the savings and loan crisis does not have the same economic effects as other government spending. It does not directly add to income or wealth, but essentially amounts to a transfer of existing assets as the government carries out its insurance commitments. In the interest of comprehensive budget accounting, CBO has argued that such outlays should be included in budget totals but might reasonably be excluded from calculations of the excess deficit under the Balanced Budget Act.

TRUST FUNDS IN THE PROJECTIONS

The federal budget contains more than 150 trust funds. Trust funds vary widely in size and purpose, but the best known fall into a few categories. They include major benefit programs (Social Security, Medicare, and others, including the government's own employee retirement programs) and several infrastructure programs (notably the Highway and the Airport and Airway trust funds). In the federal budget, trust funds primarily serve as a bookkeeping tool, set up to record earmarked income and spending. They do not have the same meaning as trust funds in the private sector. In particular, the Congress may change the terms of the trust fund--for example, by altering benefit formulas, eligibility rules, or financing.

All trust funds collect income from earmarked sources and spend it only on certain purposes. But trust funds are not as distinctive as they may appear. For most trust funds, transfers from elsewhere in the budget represent an important (sometimes the chief) source of income. Furthermore, programs financed by trust funds address needs--such as income security, medical care, and infrastructure spending--that are also met by general fund programs. But most important, the flow of dollars into and out of trust funds affects the total government deficit that must be financed.

Simply stated, the government has a deficit because it spends more money than it takes in. Any policy change that adds to revenues or reduces spending trims the deficit, and vice versa. This truth applies to trust fund programs just as it applies to the remainder of the budget. Nevertheless, attempts persist to portray the true deficit as the one that excludes trust funds. Trust funds, in this view, do not contribute to the deficit. These attempts are well-intentioned but misguided. First, they ignore the fact that trust fund revenues and outlays are an integral part of the federal government's taxing and spending policy, and that decisions affecting them have never been made in isolation. Second, they overlook the extent to which the trust fund surpluses reflect the effects of transfers within the budget rather than genuine surpluses of earmarked taxes over spending.

Social Security

The Balanced Budget Act requires that revenues and outlays of the two Social Security funds--Old-Age and Survivors Insurance (OASI) and Disability Insurance (DI)--be shown as off-budget, a treatment that highlights their contributions to the totals. (Medicare's Hospital Insurance Trust Fund will join the off-budget totals when the 1993 budget is submitted, two years from now.) Viewed alone, Social Security indisputably helps to hold down the deficit during the 1990-1995 period. With tax receipts and other income to the trust funds exceeding benefits and other costs, the Social Security surplus, as conventionally measured, almost doubles from $66 billion in 1990 to $128 billion in 1995. The deficit in the rest of the budget, under CBO baseline assumptions, grows by more than $40 billion during the same period (see Table II-5).

TABLE II-5. CBO BASELINE PROJECTIONS FOR ON-BUDGET AND OFF-BUDGET REVENUES AND OUTLAYS
(By fiscal year, in billions of dollars)

	1990	1991	1992	1993	1994	1995
On-Budget (Excludes Social Security and Postal Service)						
Revenues	779	828	874	924	978	1,037
Outlays	984	1,041	1,095	1,163	1,220	1,283
Deficit	204	212	221	239	242	246
Off-Budget (Social Security)[a]						
Revenues	288	309	330	352	376	401
Outlays	222	234	244	254	264	273
Surplus	66	74	85	98	112	128
Total[a]						
Revenues	1,067	1,137	1,204	1,277	1,355	1,438
Outlays	1,205	1,275	1,339	1,418	1,484	1,555
Deficit	138	138	135	141	130	118

SOURCE: Congressional Budget Office.

a. For comparability with the Balanced Budget Act targets, the projections exclude the Postal Service, which is also off-budget.

Like other trust funds, Social Security temporarily relinquishes surplus funds to the Treasury and receives Treasury securities in return. Social Security receives the same rate of return on Treasury securities as do private investors. The funds' holdings stood at $157 billion at the end of 1989 and climb to more than $700 billion by 1995 in the baseline. These securities can be redeemed when necessary to pay benefits and other costs. (Of course, in order to redeem the securities and pay for Social Security outlays, the government must collect taxes, reduce other spending, or raise funds in the credit markets.) In the meantime, interest on Treasury securities is a major source of income to Social Security, growing from $16 billion in 1990 to $50 billion in 1995. These interest payments are an intragovernmental transaction: they contribute to the on-budget deficit and to the off-budget surplus identically. Even without such interest payments and other smaller intrabudgetary transfers, though, Social Security taxes exceed benefits during the 1990-1995 period.

Other Trust Funds and the Importance of Intrabudgetary Transfers

Social Security is by far the largest federal government trust fund in terms of its annual tax and spending flows. Table II-6 presents the surpluses, as conventionally measured, for other major trust funds. In the aggregate, the trust fund surpluses grow from $132 billion in 1990 to $185 billion in 1995. The deficit in the rest of the budget--termed the federal funds deficit--grows from $270 billion to $303 billion.

But the official trust fund surplus, as depicted in Table II-6, is made possible by huge transfers to trust funds from the general fund. These transfers currently total about $167 billion and increase throughout the projection period. Clearly, transferring funds from one part of the government to another does not change total borrowing needs by a penny. The major transfers from the general fund to various trust funds are depicted in Table II-7.

A large and fast-growing transfer is interest paid to trust funds, which nearly doubles from $63 billion in 1990 to $111 billion in 1995. Trust funds collect interest on their holdings of Treasury securities, holdings that represent past years' surpluses that they have deposited with the Treasury. In principle, interest payments compensate the trust funds for their past contributions to reduced government bor-

rowing needs. In practice, trust funds' current holdings of Treasury securities result so overwhelmingly from past transfers from the general fund that interest payments have no clearly useful meaning.

The government's own contributions, in its capacity as employer, to employee retirement plans (principally Social Security, Civil Service Retirement, and Military Retirement) amount to about $61 billion this year and rise to $78 billion by 1995. Funding rules and contribution rates for these plans vary widely. A large portion of the government's contribution consists of special, lump-sum amortization payments to the latter two retirement funds. General fund payments to the Medicare trust funds mainly reflect the large subsidy for Supplementary Medical Insurance (SMI, or Medicare Part B), the part of

TABLE II-6. TRUST FUND SURPLUSES IN THE CBO BASELINE
(By fiscal year, in billions of dollars)

Trust Fund	1990	1991	1992	1993	1994	1995
Social Security	66	74	85	98	112	128
Medicare[a]	21	18	18	16	15	14
Military Retirement	13	14	14	15	15	15
Civilian Retirement[b]	20	20	22	22	24	25
Unemployment	7	5	4	4	3	3
Highway and Airport	3	1	c	c	-1	-1
Other[d]	3	2	2	2	2	1
Total Trust Fund Surplus	132	136	145	157	170	185
Federal Funds Deficit	-270	-273	-280	-297	-299	-303
Total Deficit	-138	-138	-135	-141	-130	-118

SOURCE: Congressional Budget Office.

a. Hospital Insurance and Supplementary Medical Insurance.

b. Includes Civil Service Retirement, Foreign Service Retirement, and several smaller funds.

c. Less than $500 million.

d. Primarily Railroad Retirement, Employees' Health Insurance and Life Insurance, and Hazardous Substance Superfund.

TABLE II-7. MAJOR TRANSFERS FROM FEDERAL FUNDS TO TRUST FUNDS IN THE CBO BASELINE
(By fiscal year, in billions of dollars)

	1990	1991	1992	1993	1994	1995
Transfers from General Fund to Trust Funds						
Interest Paid to Trust Funds						
Social Security	16	22	27	34	42	50
Other trust funds	46	49	52	55	58	61
Subtotal	63	71	79	89	100	111
Federal Government Contributions to Retirement Funds						
Social Security	6	6	7	7	8	9
Other trust funds[a]	55	58	61	64	67	70
Subtotal	61	64	67	71	75	78
General Fund Payments to Medicare Trust Funds[b]	37	38	45	52	61	71
All Other Transfers (Net)	6	5	6	6	7	7
Total Transfers	167	178	198	219	242	268
Deficit Totals Excluding Interfund Transfers						
Total Trust Fund Surplus Excluding Transfers from General Fund	-35	-43	-53	-62	-72	-83
Total Federal Funds Deficit Excluding Transfers to Trust Funds	-104	-95	-83	-79	-58	-35
Total Deficit	-138	-138	-135	-141	-130	-118

SOURCE: Congressional Budget Office.

a. Includes lump-sum amortization payments to the Civil Service and Military Retirement trust funds.

b. Primarily the general fund contribution to Supplementary Medical Insurance (Part B of Medicare).

the program that covers physicians' fees and similar expenses for enrollees. Premiums collected from beneficiaries cover only about one-fourth of SMI expenses at present and even less in future years, necessitating large general revenue funding. These transfers nearly double in the 1990-1995 period. Other transfers total $5 billion to $7 billion a year.

Trust fund surpluses, as conventionally measured, misleadingly suggest how individual programs are holding down the government's overall deficit. As Table II-7 shows, when intrabudgetary transfers are excluded, the aggregate trust fund surplus is in fact a deficit, and the deficit grows from about $35 billion this year to $83 billion in 1995. The Treasury must borrow to finance the benefits and other spending of trust fund programs, because the earmarked taxes and premiums that these programs collect are not enough. In fact, of all the major trust fund programs, Social Security is the only one that currently takes in significantly more in taxes than it pays out. While Medicare's Hospital Insurance (Part A) program also collects more in taxes than it pays out in benefits, its sister program, Supplementary Medical Insurance, is kept afloat by large general revenue transfers.

The federal funds deficit would look very different if it did not include large transfers to trust funds (see Table II-7). When such payments are excluded, the federal funds deficit shrinks by two-thirds over the 1990-1995 period, from about $104 billion at present to $35 billion in 1995. This pattern sharply contradicts one of today's budgetary fallacies: that official budget totals mask a growing trust fund surplus and a sharply deteriorating federal funds deficit.

Trust Funds and Deficit Targets

Some reformers urge treating trust funds separately in any revamped set of targets and enforcement procedures that might replace the current Balanced Budget Act. For example, one camp favors aiming for a balance in the non-Social Security budget. Another camp proposes balancing the federal funds budget--that is, running a zero deficit even when all trust funds are excluded from the calculation. Most advocates of such approaches have not addressed the problems with the measurement of trust fund surpluses that were outlined above.

If these proposed targets were in place for 1995, they would imply large overall federal surpluses. Balancing the non-Social Security deficit implies a total federal government surplus of about $128 billion; balancing the federal funds deficit, an overall surplus of about $185 billion, as Tables II-5 and II-6 suggest.

Such large, sustained surpluses have no precedent in U.S. history, though that does not mean they are a bad idea. Even economists who favor federal government surpluses, though, do so out of concern that the U.S. saving rate is chronically low. The government's saving (or dissaving) is properly measured as the total surplus (or deficit), not just a part of it. Furthermore, if trust funds are excluded from budget totals, dilemmas arise as to how to maintain budget discipline--for example, how to withstand pressure for tax cuts or benefit increases in trust fund programs, if these programs do not count in official totals.

Competing measures of the deficit--on-budget versus off-budget, federal funds versus trust funds--understandably confuse those seeking a single measure of the government's fiscal imbalance. Accurately measuring the government's borrowing needs and its role in the economy requires counting all revenues and spending. From this standpoint, the total deficit is by far the best measure and the one that CBO emphasizes.

ECONOMIC ASSUMPTIONS AND THE BUDGET PROJECTIONS

The federal budget is highly sensitive to the economy. Revenues depend largely on wages and salaries, profits, and other taxable incomes. Cash benefit programs (such as Social Security) pay automatic inflation adjustments, while other benefit programs (such as Medicare and Food Stamps) respond to inflation in particular sectors of the economy. Baseline projections assume that defense and nondefense discretionary appropriations keep pace with inflation, which would otherwise erode real resources for these activities. The unemployment rate affects spending for unemployment insurance and several other programs, as well as tax collections. Finally, the cost of servicing the government's large and growing debt depends on interest rates.

Uncertainty about the economy's performance feeds uncertainty in budget projections. In the past decade, as Appendix A shows, errors in

the economic assumptions have caused federal deficits to exceed targets set in Congressional budget resolutions by an average of $17 billion. (Recent budget resolutions have used economic assumptions developed by the Administration rather than by CBO.) Choosing economic assumptions for the Congressional budget resolution requires forecasting economic conditions for no more than two years into the future. Longer-run projections, such as the five-year estimates described in this chapter, are fraught with even greater uncertainty.

One popular way to spotlight the effects of economic performance on the budget focuses on four key variables: real economic growth, unemployment, inflation, and interest rates. Table II-8 shows the estimated changes in budget totals if any of these assumptions were to differ from CBO's baseline assumptions by one percentage point beginning in January 1990. Such illustrations of the isolated effects of individual economic variables on the budget are commonly called rules of thumb.

Real Growth

Assumptions about real economic growth have powerful effects on the budget projections. The baseline assumes that real growth in calendar year 1990 will be 1.7 percent, and will average about 2.3 percent a year during the 1990-1995 period. Knocking one percentage point from this rate would slow average growth to about 1.3 percent over the five-year span and sharply lower the paths of wages and salaries, profits, and other taxable incomes. The gap widens each year; by 1995, total GNP would fall about 6 percent below its baseline level. In this alternative path, the economy never actually sinks into recession, but suffers prolonged anemic growth.

Revenue losses under this path climb from about $7 billion in 1990 to about $112 billion in 1995 (see Table II-8). As sluggish growth persists, unemployment also mounts until, by 1995, the unemployment rate exceeds the baseline by more than two percentage points. Higher spending for unemployment insurance and other benefit programs results. But with time the outlay category most sensitive to economic growth is not benefit programs but net interest: higher borrowing greatly increases the government's cost of servicing its debt. By 1995, including both revenue and outlay effects, the deficit would be higher

by $143 billion. Because rules of thumb show the effect of economic variables in isolation, this example assumes that inflation and interest rates remain unchanged even as real growth falters.

TABLE II-8. EFFECTS ON CBO BASELINE BUDGET PROJECTIONS OF SELECTED CHANGES IN ECONOMIC ASSUMPTIONS
(By fiscal year, in billions of dollars)

	1990	1991	1992	1993	1994	1995
Real Growth: Effect of One-Percentage-Point Lower Annual Rate Beginning January 1990						
Change in Revenues	-7	-23	-42	-64	-87	-112
Change in Outlays	1	4	8	14	21	31
Change in Deficit	7	26	50	77	108	143
Unemployment: Effect of One-Percentage-Point Higher Annual Rate Beginning January 1990						
Change in Revenues	-28	-45	-48	-50	-52	-54
Change in Outlays	4	7	12	17	21	27
Change in Deficit	32	52	60	66	73	81
Inflation: Effect of One-Percentage-Point Higher Annual Rate Beginning January 1990						
Change in Revenues	6	19	34	50	68	88
Change in Outlays	3	17	32	47	64	83
Change in Deficit	-2	-1	-2	-2	-3	-5
Interest Rates: Effect of One-Percentage-Point Higher Annual Rates Beginning January 1990, All Maturities						
Change in Revenues	0	0	0	0	0	0
Change in Outlays	3	11	16	21	26	31
Change in Deficit	3	11	16	21	26	31
Interest Rates: Effect of One-Percentage-Point Higher Annual Rates Beginning January 1990, Medium- and Long-Term Maturities Only						
Change in Revenues	0	0	0	0	0	0
Change in Outlays	1	6	10	14	18	22
Change in Deficit	1	6	10	14	18	22

SOURCE: Congressional Budget Office.

Unemployment

The second rule of thumb illustrates the budgetary effects of an increase of one percentage point in the unemployment rate. As the first rule of thumb makes clear, real growth and unemployment are intertwined; this second rule simply presents an alternative path for the two variables. In the CBO baseline forecast, the unemployment rate averages about 5½ percent for the next six years. In this rule of thumb, in contrast, the unemployment rate jumps to about 6½ percent and stays there.

An immediate jump of one percentage point in the unemployment rate would be accompanied by a sharp reduction in output. A well-known generalization, known as Okun's law, links a percentage-point rise in the unemployment rate to a reduction of about 2½ percent in GNP. In the short run, this loss in economic output is more drastic than in the first rule of thumb, and has more severe budgetary effects. While the nation's idle resources remain permanently above their baseline levels in this rule of thumb, however, the gap between actual and potential output does not widen further. In the longer run, the effect on the deficit is smaller than in the first rule of thumb, which depicted the budgetary effects of prolonged, anemic growth.

Inflation

Inflation has complex effects on the federal budget. The third rule of thumb shows the estimated budgetary effects of an inflation rate that is one percentage point higher than in the baseline beginning in January 1990. Thus, this rule of thumb assumes that inflation (as measured by the GNP deflator) averages about 5 percent annually through 1995, instead of 4 percent as in the baseline. Real economic growth is held to its baseline path; furthermore, higher inflation is assumed to have roughly the same effect on all prices and wages. Finally, nominal interest rates are assumed to rise by one percentage point as well, leaving real interest rates unchanged.

Inflation boosts revenues mainly by increasing taxable incomes. Since tax bases are measured in nominal dollars, the increased incomes that are associated with higher inflation generate added tax revenues even if average tax rates remain unchanged. Indexation has

curtailed the former tendency of inflation, under a progressive structure of individual income tax rates, to raise average tax rates by pushing taxpayers into higher brackets. Annual indexation of the income tax began in 1985 and resumed in 1989, after a two-year suspension that allowed the phase-in of tax reform's new rate structure.

As revenues grow with inflation, however, outlays also respond with varying lags. Almost all benefit programs (which make up about 40 percent of federal spending) pay cost-of-living adjustments or otherwise respond more or less automatically to inflation. Because the Congress must vote anew on funding levels for discretionary programs, these programs do not respond automatically to inflation; for this illustration, CBO assumes--as in the baseline--that funding levels grow apace with inflation. Finally, interest rates would almost certainly respond to higher inflation, driving up the government's borrowing costs. As Table II-8 shows, with higher inflation, total outlays increase almost as much as revenues, and only a small change in the deficit ensues. Both the deficit and the debt, though, are smaller in relation to a gross national product that is increased by inflation.

Interest Rates

The last two rules of thumb depicted in Table II-8 describe the budget's sensitivity to an increase of one percentage point in key interest rate assumptions. The Treasury must finance and refinance the growing federal debt at prevailing market rates. Raising the interest rate assumption for all Treasury maturities would raise estimated outlays by $3 billion in 1990. After five years, almost the entire debt bears the higher interest rates; with three-fourths of the pre-1990 debt refinanced, and about $800 billion in new debt added, interest costs are about $31 billion higher in 1995. Besides net interest, these estimates reflect small changes in Stafford educational loans and other interest-sensitive programs. This rule of thumb, however, does not incorporate any potential increases in losses by financial institutions (and, hence, in federal spending for deposit insurance) that might result from higher interest rates.

The effects on revenues of higher interest rates are mixed. Higher interest rates tend to result in higher incomes for some taxpayers, including the Federal Reserve System (which returns to the Treasury the

bulk of interest earnings on its portfolio). But other taxpayers would report lower profits or larger deductions for interest costs. For simplicity, no revenue effect is shown.

The last panel examines the budget's sensitivity to higher interest rates on medium- and long-term maturities only. Ever since large deficits began, the Treasury has done two-thirds or more of its new borrowing in these maturities, and the baseline assumes that this practice will continue. Raising the interest rate assumptions for these securities--that is, for maturities of 2 to 30 years--boosts outlays by an estimated $1 billion in 1990 and $22 billion in 1995.

Rules of thumb are roughly symmetric. That is, higher real growth, lower unemployment, and lower interest rates would have approximately the opposite effects from those shown in Table II-8, reducing the deficit in each case instead of raising it.

While these rules of thumb clearly show the link between economic assumptions and budget estimates, they have their limitations. Economic variables are related to one another, and sustained changes in one rarely occur in isolation. CBO does not use rules of thumb to project the budget, but instead analyzes many economic and other variables that have important budgetary effects. Furthermore, these rules of thumb show one-percentage-point changes for simplicity; they do not reflect typical forecasting errors. Some economic variables are notoriously harder to predict than others. For example, a one-percentage-point error in interest rate assumptions is much more likely than a one-percentage-point error in projecting real economic growth over a five-year horizon.

CHAPTER III

BASELINE SPENDING, REVENUE, AND CREDIT PROJECTIONS

This chapter describes in greater detail the baseline spending and revenue projections that are summarized in Chapter II. The baseline estimates depict the effects of unchanged budgetary policies--that is, the continuation of tax and spending laws that are now on the books and the preservation of real funding for discretionary spending programs. The chapter concludes with a brief summary of federal government credit activity under current policies.

THE FIVE-YEAR OUTLOOK FOR SPENDING

In 1990, the government is projected to spend $1,205 billion, an increase of about 5½ percent over last year. Under current policies, outlays continue growing at about the same rate, reaching $1,555 billion in 1995. Total outlays grow faster than inflation, but less rapidly than gross national product, in all years.

Most of the projected growth in outlays would take place more or less automatically under current law. Only a relatively small fraction of this growth stems from increases in appropriations that are assumed in the CBO baseline. In total, outlays rise by about $350 billion between 1990 and 1995. Increases in entitlement spending, led by Social Security and Medicare, account for nearly two-thirds of the increase. These increases will occur automatically unless policymakers change the laws governing such programs. The government's net interest bill--arguably the least controllable component of federal spending--also grows steadily between 1990 and 1995, as large deficits persist under CBO baseline assumptions (though the increase is mitigated by the gradual decline in interest rates that is assumed by CBO). In contrast, increases in defense and nondefense discretionary spending account for less than one-third of the increase in spending between 1990 and 1995. In the baseline, these appropriations are assumed to keep pace with inflation; the Congress, though, must explicitly decide every year how much to spend on these programs. Failing to adjust

these programs for inflation would lower 1995 outlays for defense and nondefense discretionary spending by $61 billion, but would imply a decline in real resources of about 20 percent for these activities.

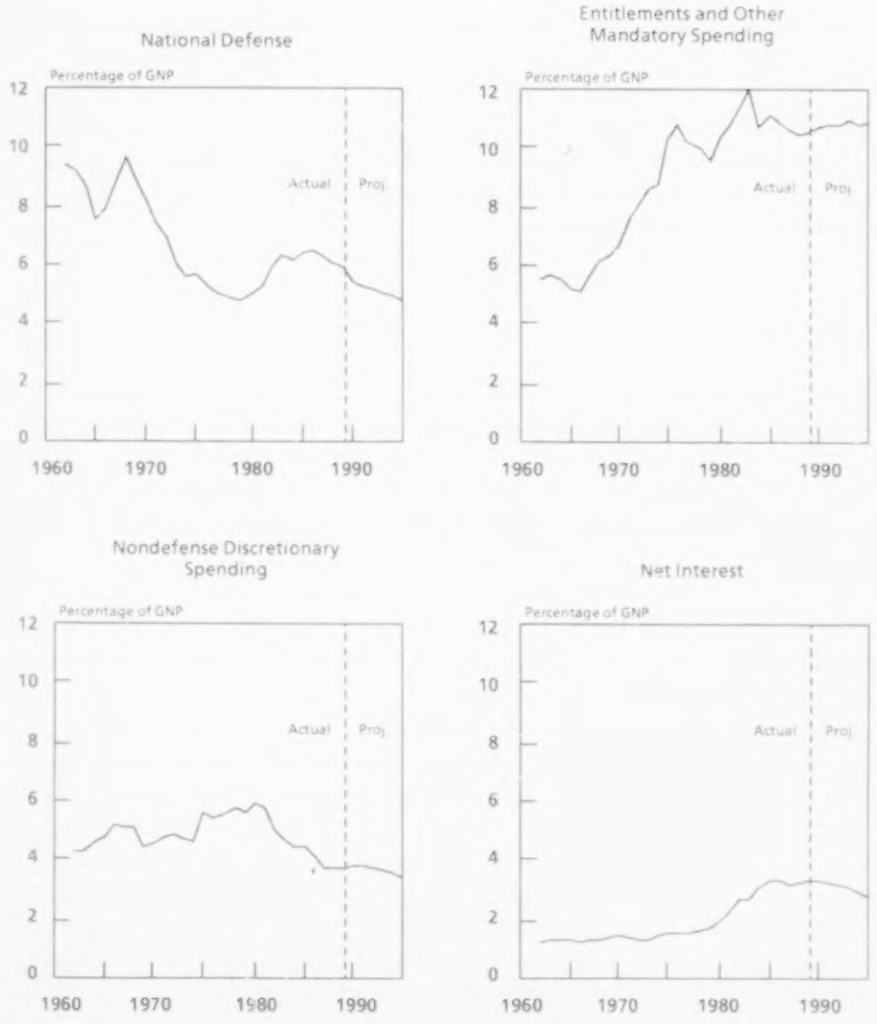
Federal spending can be described in many ways. The following section presents projections for five broad categories of spending that are commonly used by the Congress in making budget decisions (see Table III-1). Historical spending for these categories--national defense, nondefense discretionary spending, entitlements and other mandatory spending, net interest, and offsetting receipts--is shown in Appendix E.

TABLE III-1. CBO BASELINE OUTLAY PROJECTIONS FOR MAJOR SPENDING CATEGORIES (By fiscal year)

Spending Category	Actual 1989	Base 1990	Projected 1991	1992	1993	1994	1995
			In Billions of Dollars				
National Defense	304	297	307	318	328	345	355
Nondefense Discretionary Spending	191	205	219	229	237	245	254
Entitlements and Other Mandatory Spending	544	584	624	664	718	758	809
Net Interest	169	180	185	192	199	205	209
Offsetting Receipts	-64	-60	-60	-63	-65	-69	-72
Total	1,143	1,205	1,275	1,339	1,418	1,484	1,555
			As a Percentage of GNP				
National Defense	5.9	5.4	5.3	5.1	5.0	4.9	4.8
Nondefense Discretionary Spending	3.7	3.8	3.8	3.7	3.6	3.5	3.4
Entitlements and Other Mandatory Spending	10.6	10.7	10.8	10.7	10.9	10.8	10.8
Net Interest	3.3	3.3	3.2	3.1	3.0	2.9	2.8
Offsetting Receipts	-1.2	-1.1	-1.0	-1.0	-1.0	-1.0	-1.0
Total	22.2	22.1	22.0	21.7	21.5	21.2	20.8

SOURCE: Congressional Budget Office.

Figure III-1.
Outlays by Category as Shares of GNP



SOURCE: Congressional Budget Office.

Their past and present sizes, relative to GNP, are depicted in Figure III-1 on the previous page.

Two appendixes present alternative classifications of the budget totals. Appendix C divides spending into 19 budget functions describing particular national needs--defense, administration of justice, health, and so forth--that are addressed by government programs. Appendix D casts both the spending and revenue projections into the terms most commonly used for macroeconomic analysis, the National Income and Product Accounts.

National Defense

This spending category is dominated by activities of the Department of Defense but also includes defense-related functions of other agencies, such as the Department of Energy's nuclear weapons programs, the intelligence agencies, and so forth. Total budget authority for defense programs in 1990 is about $302 billion, and defense outlays are about $297 billion.

Budget authority for national defense in the baseline increases to keep pace with inflation, about 4 percent per year. Pay for this category's 3 million uniformed employees (including more than 1 million in the reserve forces) and 1 million civilians is also assumed to keep pace with inflation. Defense outlays grow somewhat less rapidly, as the relatively small increases in budget authority approved since the mid-1980s continue to constrain spending. Defense outlays in 1990 are actually expected to fall below 1989's level. In part, this drop reflects a timing shift. Relying on authority granted to the Secretary of Defense, the Administration in late September disbursed military paychecks that would ordinarily have been paid on October 1, thus moving approximately $3 billion in outlays from fiscal year 1990 into 1989. But even without this shift, outlays would have been flat between 1989 and 1990.

The relationship between defense budget authority and outlays since the end of World War II, in both current and constant dollars, is depicted in Figure III-2. Defense spending surged in the early and mid-1980s, following the large increases in budget authority approved

Figure III-2.
Defense Budget Authority and Outlays

SOURCE: Congressional Budget Office.

in the last years of President Carter's Administration and during President Reagan's first term. In the 1981-1985 period, annual dollar increases in defense budget authority averaged more than 15 percent; even with the high inflation that characterized this period, annual real increases averaged over 9 percent. For the past five years, however, increases in defense budget authority have failed to keep pace with inflation. Final appropriations for fiscal year 1990 contained a slim 1 percent increase for defense budget authority over the 1989 level, well below the rate of inflation.

Slightly different perspectives emerge from analyzing defense spending as a share of the total economy versus analyzing it in dollar terms. Under the baseline assumptions, defense spending would claim a shrinking portion of the nation's output. As a share of GNP, defense outlays fall from about 5.4 percent at present to 4.8 percent by 1995--about the same percentage as in the years immediately after the Vietnam War, and the smallest since the late 1940s (see Figure III-1). But the nation's economy has expanded greatly during the same period. Therefore, even while defense is smaller relative to GNP than during recent decades, real defense spending remains high. As Figure III-2 shows, real outlays still equal or surpass typical levels of the past 45 years with only three distinct exceptions: the Korean War, the Vietnam War, and the defense buildup of the Reagan years.

The defense baseline preserves the mix of activities reflected in the 1990 appropriation. Of the $302 billion in defense budget authority, the largest amounts are for military personnel (about $79 billion), operation and maintenance ($87 billion), and procurement ($83 billion). Another $37 billion is earmarked for research, development, test, and evaluation; and $7 billion is slated for other Department of Defense activities. The remaining $10 billion goes to other federal agencies, mainly the Department of Energy.

The mix of priorities in the defense budget affects deficit outcomes. A clear illustration of this importance is the way that the Administration has chosen to deal with the 1990 sequestration in defense programs. Sequestration by itself lowered defense outlays by $1.2 billion in 1990. But by using flexibility afforded by law to transfer up to $3 billion of budget authority among defense accounts, the Administration is expected to cushion the sequestration by transferring funds from slow-spending procurement accounts to fast-spending military

personnel accounts. The 1990 budget authority figures that were presented above reflect these expected transfers. CBO assumes that this reshuffling erases about $0.7 billion of the sequestration's expected outlay savings in 1990. The missing savings, of course, occur in later years, according to the slower procurement timetable.

Although the defense baseline assumes zero real growth, the Congress may choose to reduce real defense appropriations in light of reduced U.S.-Soviet tensions. Box III-1 illustrates several paths under which defense spending would be lower than in the CBO baseline. These examples are illustrative only and are not forecasts of defense budget outcomes.

Nondefense Discretionary Spending

Nondefense discretionary spending, an extremely varied category, encompasses most of the government's activities in the areas of science and space, transportation, medical research, environmental protection, and law enforcement, to name only a few. Such spending is expected to total $205 billion in 1990. About one-fifth of nondefense discretionary spending goes toward pay and benefits for civilian agency employees; about one-third reflects grants to state and local governments.

The Congress sets funding levels for nondefense discretionary programs in annual appropriation bills. As with defense programs, the baseline assumes that appropriations keep pace with inflation. Outlays grow slightly faster, climbing about 5 percent a year on average.

Relative to the nation's GNP, nondefense discretionary spending, now just 3.8 percent, shrinks further to about 3.4 percent by 1995. Such spending is already at its smallest share of GNP since the early 1960s and lies well below its peaks during the late 1970s, when it generally represented 5½ percent to 6 percent of GNP (see Figure III-1).

Broad clusters of nondefense discretionary spending have waxed and waned relative to GNP since the early 1960s, as shown in Figure III-3. While individual programs within these broad clusters may have fared better or worse than others, Figure III-3 depicts clear shifts in the priorities of the federal government during this period.

BOX III-1
ALTERNATIVE DEFENSE SPENDING PROJECTIONS

The CBO baseline assumes that defense appropriations are adjusted fully for inflation. The same assumption applies to nondefense appropriations and is required for purposes of baseline projections under the Balanced Budget Act. Nevertheless, real defense appropriations have been falling. Beginning in 1986, growth in budget authority for defense has fallen short of inflation--by about 4 percent in 1986 and 1987, and by about 1 percent to 2 percent in 1988 through 1990 (using special price indexes that reflect the actual mix of goods and services purchased by the Department of Defense). Many observers assume that future appropriations will also fail to match inflation. In this view, the push to reduce the federal deficit will join with reduced East-West tensions to create pressures restraining the defense budget.

Two hypothetical paths for future defense spending are compared with the CBO baseline in the table below. The first involves annual real declines of about 2 percent in defense budget authority, roughly the same rate that has prevailed for the last three years. Compared with the baseline, such a decline after 1990 would generate up to $4 billion in defense savings next year, growing to about $30 billion in 1995. The exact savings would depend on the categories marked for reduction. The illustration assumes that all defense spending categories--procurement, operation and maintenance, personnel, and so forth--are subject to equal percentage reductions. (Sparing personnel would tend to reduce the savings in the short run, as reductions would then be concentrated in slower-spending accounts such as procurement.) Annual real declines of 4 percent would approximately double the savings. With inflation running at about 4 percent in the CBO baseline, this policy would be roughly equal to a five-year nominal freeze in defense budget authority.

If the savings implied by defense spending cuts are devoted to deficit reduction, the government's borrowing and interest costs would be significantly reduced. By 1995, annual savings in interest costs would amount to $5 billion if real defense appropriations decline by 2 percent a year. Interest savings would be twice as large if annual appropriations reflect a 4 percent real decline.

HYPOTHETICAL SAVINGS FROM DEFENSE BUDGET COMPARED WITH CBO BASELINE
(By fiscal year, in billions of dollars)

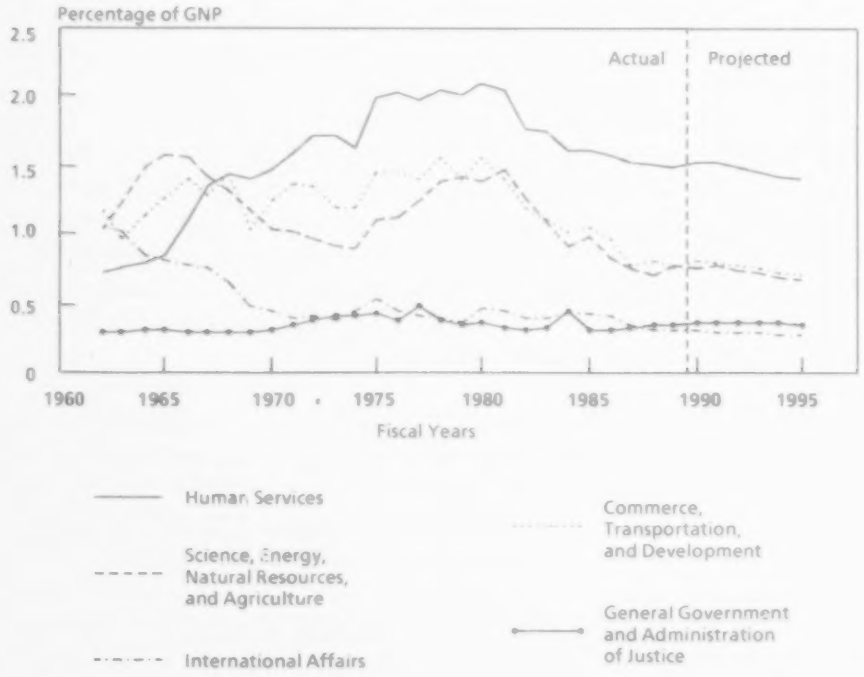
	1991	1992	1993	1994	1995
2 Percent Annual Real Decline in Budget Authority					
Change in Defense Spending	-4	-9	-15	-22	-30
Change in Interest Spending	a	-1	-2	-3	-5
Total Change in Deficit	-4	-10	-17	-25	-35
4 Percent Annual Real Decline in Budget Authority					
Change in Defense Spending	-8	-18	-30	-43	-57
Change in Interest Spending	a	-1	-3	-6	-10
Total Change in Deficit	-8	-19	-33	-50	-68

SOURCE: Congressional Budget Office.

a. Less than $500 million.

Spending for international affairs--primarily security and humanitarian assistance to other nations--has declined fairly steadily since the early 1960s. A longer historical perspective than that depicted in Figure III-3 would show an even steeper decline; during the late 1940s and early 1950s--years in which the United States was contributing heavily to postwar reconstruction--such spending typically ranged between 2 percent and 2½ percent of GNP. Outlays for general government and administration of justice have not fluctuated greatly. Spending in the areas of science, energy, natural resources, and agriculture shows two distinct peaks. The first occurred during the race to the moon in the late 1960s; the second reflected the boom in spending for energy and, to a lesser extent, for the environment in the late 1970s

Figure III-3.
Nondefense Discretionary Spending as a Share of GNP



SOURCE: Congressional Budget Office.

and early 1980s. Commerce and housing credit, transportation, and community development are currently about half as large, relative to GNP, as they were during most of the 1970s. Finally, human services programs--encompassing activities such as education, training, social services, medical research, subsidized housing, and the administrative costs of many benefit programs--have made up the largest share of non-defense discretionary spending for 20 years. These programs, too, have shrunk from their peaks and are currently only about three-fourths as large, relative to GNP, as in the late 1970s.

Entitlements and Other Mandatory Spending

About one-half of federal government spending comprises entitlement and mandatory programs, which amount to $584 billion in 1990. Such programs make payments to any person, business, or unit of government that seeks the payments and meets the criteria set by law. The Congress controls spending for these programs indirectly, by defining eligibility and by setting the benefit or payment rules, rather than directly through the appropriation process.

The best-known entitlements are the two biggest benefit programs--Social Security and Medicare--run by the government. This category also includes less obvious benefit programs such as farm price supports, Stafford student loans, and the school lunch program. Mandatory programs, such as the government's deposit insurance spending to resolve troubled financial institutions, are also included because the government must fulfill its commitments.

Entitlements and other mandatory spending were by far the fastest-growing category of federal spending over the last quarter century, roughly doubling in size relative to GNP (see Figure III-1). In the baseline, this category is the only one that keeps pace with GNP, remaining just shy of 11 percent of GNP throughout the five-year period.

This huge category of spending is further divided into its major components in Table III-2. Only about one-sixth of entitlements meets the common definition of welfare programs, paying benefits to those who demonstrate need. Most other entitlements, while some of their spending may benefit poor people, are not means-tested.

TABLE III-2. CBO BASELINE OUTLAY PROJECTIONS FOR ENTITLEMENTS AND OTHER MANDATORY SPENDING
(By fiscal year, in billions of dollars)

Category	Actual 1989	Base 1990	Projected 1991	1992	1993	1994	1995
Means-Tested Programs							
Medicaid	35	39	45	51	57	63	70
Food Stamps[a]	14	15	16	17	18	19	19
Supplemental Security Income	11	11	13	14	15	18	18
Family Support	11	12	13	14	15	15	16
Veterans' Pensions	4	4	4	4	4	4	4
Child Nutrition	5	5	5	6	6	6	6
Earned Income Tax Credit	4	4	4	5	5	5	5
Stafford Loans[b]	4	4	4	4	4	4	3
Other	1	2	2	2	2	3	3
Total, Means-Tested Programs	89	97	108	116	125	137	146
Non-Means-Tested Programs							
Social Security	230	247	263	280	298	316	335
Medicare	94	104	116	131	147	165	183
Subtotal	325	351	380	411	445	480	518
Other Retirement and Disability							
Federal civilian[c]	32	34	39	41	44	47	51
Military	20	22	23	24	26	27	29
Other	5	5	5	5	6	6	6
Subtotal	57	61	67	71	75	80	86
Unemployment Compensation	14	16	16	17	17	18	19
Other Programs							
Veterans' benefits[d]	15	14	15	15	15	17	16
Farm price supports	11	8	12	12	12	11	10
Deposit insurance	21	22	12	8	14	1	2
Social services	5	5	6	6	5	5	5
Other[e]	8	11	10	9	9	8	8
Subtotal	59	60	54	50	56	42	41
Total, Non-Means-Tested Programs	455	487	517	548	593	621	664
Total							
All Entitlements and Other Mandatory Spending	544	584	624	664	718	758	809

SOURCE: Congressional Budget Office.

NOTE: Spending for major benefit programs shown in this table includes benefits only. Outlays for administrative costs of most benefit programs are classified as nondefense discretionary spending, and Medicare premium collections as offsetting receipts.

a. Includes nutrition assistance to Puerto Rico.
b. Formerly known as Guaranteed Student Loans.
c. Includes Civil Service, Foreign Service, Coast Guard, and other retirement programs, and annuitants' health benefits.
d. Includes veterans' compensation, readjustment benefits, life insurance, and housing programs.
e. Excludes Postal Service outlays after 1989.

Means-Tested Programs. Means-tested entitlements grow from $97 billion in 1990 to $146 billion in 1995. Medicaid, a joint federal and state program, is the largest and fastest-growing member of this category. Medicaid primarily covers participants in certain income support programs such as Supplemental Security Income (SSI) and Aid to Families with Dependent Children (AFDC), other participants with greater incomes but high medical expenses, and selected groups targeted by recent program expansions. At present, almost three-fourths of Medicaid spending goes to the aged, although they represent less than one-quarter of the participants. Much of this spending goes to pay the costs of long-term care in nursing homes. Rapid growth in Medicaid is fueled by growth in the eligible population, greater use of covered services, rising costs of medical care, and decisions at the federal and state levels, after cuts in the early 1980s, to expand coverage to additional needy people. The recent expansions have targeted specific groups: low-income pregnant women, young children, and families attempting to leave the welfare rolls. Spending that results from program expansions enacted since 1985 accounts today for roughly 6 percent of Medicaid outlays, growing to about 11 percent in two years.

Other means-tested programs and their estimated spending are also listed in Table III-2. The largest programs include Food Stamps; SSI for the aged, blind, and disabled; Family Support Payments (another joint federal/state program, primarily consisting of AFDC); pensions for needy veterans who are aged or disabled; Child Nutrition (more commonly known as the school lunch program); and several others.

Non-Means-Tested Programs. The rest of entitlement spending is not means-tested. Social Security and Medicare are by far the largest such programs. Social Security now pays monthly benefits to 39 million recipients--retired and disabled workers and their spouses, dependents, and survivors. The baseline projections for Social Security reflect continued growth in the beneficiary population, tapering off from about 1.4 percent a year at present to about 1.1 percent by the mid-1990s, as the relatively small number born during the Depression reaches eligibility. In addition, the average benefit rises, both because of cost-of-living adjustments and the addition of retirees with recent, relatively high earnings.

Medicare is a smaller program than Social Security but grows much faster under current policies, despite several legislative and

regulatory cutbacks in recent years. Medicare was among the fastest-growing major spending programs during the 1980s, outpacing defense and Social Security and second only to net interest; Medicare growth outpaces all other major spending categories in the baseline projections. Medicare growth has been fueled by growth in the eligible population, by inflation in the medical sector far outstripping general inflation, and by trends in the mix of cases and the use of medical care. Growth in spending has been particularly strong in the Supplementary Medical Insurance (SMI) program, which primarily pays for physician services. Attempts to curtail Hospital Insurance (HI) spending are speculated to have shifted costs onto SMI--for example, by encouraging outpatient procedures. The spending totals shown in Table III-2 reflect the benefits paid by Medicare. Premiums collected from SMI enrollees defray a fraction of that program's costs but are included in the offsetting receipts category of the budget.

Last fall, the Congress repealed the year-old expansions in Medicare catastrophic coverage following widespread opposition to the program's financing provisions. In passing the 1988 law, the Congress sought to pay for the new benefits through added levies on the elderly themselves--through higher premiums for all beneficiaries and a special income tax surcharge that applied to the higher-income elderly. With the repeal of virtually all provisions of this legislation, the baseline no longer includes significant expansions in Medicare benefits in 1990 and beyond, including unlimited hospital stays, a cap on out-of-pocket costs for physician services, and prescription drug benefits.

Other retirement and disability programs are dominated by the government's civilian and military retirement programs and by retirement payments to railroad workers. Included in the federal retirement category is the government's fast-growing contribution for annuitants' health benefits, which climbs to $8 billion by 1995. Another large program, unemployment compensation, grows little under the baseline assumptions about the economy.

All other entitlements and mandatory programs are projected to total $60 billion in 1990, declining to $41 billion by 1995. The drop can be traced to a single volatile category of spending, deposit insurance; other programs in this category are essentially flat or grow modestly. Non-means-tested veterans' benefits currently total about $14 billion and grow slowly. Another large program, farm price supports, peaked

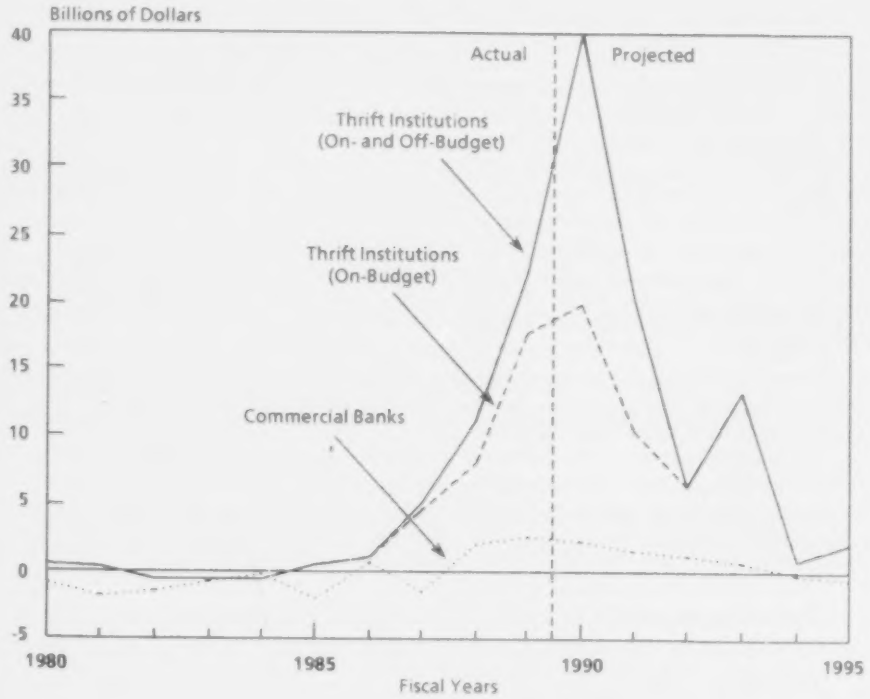
in 1986 at $26 billion and averages $11 billion a year in the 1990-1995 period under the baseline assumptions. Outlays for farm price supports fall below 1989 levels this year because of the sharp decline in drought-related disaster payments. Spending for farm price supports is also artificially depressed in 1990 by the Administration's decision to shift into 1989 some payments that would ordinarily have occurred this year, thus reducing the 1990 deficit. The five-year projections assume average weather and growing conditions, since forecasting the weather accurately for even a few months into the future is clearly impossible. In the absence of special assistance, poor weather conditions translate into smaller crops, higher prices, and reduced outlays for farm price supports; the opposite is true for good growing conditions.

Spending for deposit insurance has been an extraordinarily volatile category of federal spending. Through the mid-1980s, premiums and other income to the deposit insurance funds typically exceeded their costs of aiding troubled financial institutions. But as Figure III-4 indicates, this is no longer the case. Deposit insurance spending has greatly added to the deficit in the past few years and will continue to do so through the mid-1990s under the baseline assumptions. Most of the outlays are for troubled savings and loans (thrift institutions). Budget outlays would be even larger, except that about $30 billion is effectively excluded from the budget in 1990 and 1991 because the funds are technically borrowed by an off-budget, government-sponsored enterprise and turned over to the Treasury.

Last year's deposit insurance legislation created a plethora of new and successor agencies to deal with various aspects of regulation and insurance for commercial banks and thrift institutions. One such agency, the Resolution Trust Corporation (RTC), was created specifically to deal with savings and loan institutions that the government knew to be insolvent but could not resolve without new resources. The RTC received $50 billion in resources: about $19 billion from general funds; $1 billion from the Federal Home Loan Banks; and $30 billion from off-budget borrowing by a government-sponsored enterprise. The RTC has indicated, however, that it does not have enough working capital to do its job. Working capital refers to the money that RTC will need for a period of years to finance the assets acquired from closed institutions. Box III-2 discusses the working capital controversy.

Deposit insurance projections for the 1990-1995 period are very uncertain; the projections for single years are even more precarious. One key uncertainty is the pace at which the (off-budget) Resolution Financing Corporation (REFCORP) will borrow money and turn it over to the (on-budget) RTC, thus holding down the outlays that will be recorded in the budget. CBO has assumed that REFCORP will borrow $20 billion in 1990 and $10 billion in 1991. Another uncertainty is the speed of case resolutions, as a faster pace of resolutions would boost on-budget outlays in the near term. The government's means of conducting case resolutions also affects budget outcomes; liquidation of insolvent institutions requires more cash in the short run but generates sales proceeds months or years later. Outlays by the Federal Savings

Figure III-4.
Deposit Insurance Spending



SOURCE: Congressional Budget Office.

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and Loan Insurance Corporation (FSLIC) Resolution Fund, which is responsible for insolvent thrifts already in government hands by 1989, are also highly uncertain. (The fund's excess of disbursements over re-

BOX III-2
THE PROBLEM OF WORKING CAPITAL

The Resolution Trust Corporation (RTC) has indicated that it will need resources beyond the $50 billion that the Financial Institutions Reform, Recovery, and Enforcement Act of 1989 (FIRREA) authorized for closing or merging hundreds of insolvent thrift institutions. This need for "working capital" is similar to a company's need for cash to buy inventory; the business may borrow to finance the inventory, using its receivables as collateral. Once the inventory is sold, the loan can be repaid. The need for working capital appears to be substantial because the RTC believes that the least costly method of resolving many of the insolvent institutions is through liquidations or "clean-bank" transactions, which allow the RTC to strip out bad assets and sell them separately.

As a source of working capital, FIRREA allows the RTC to borrow $5 billion from the Treasury and to issue notes to the acquirers of failed institutions. RTC's net outstanding obligations, however, may not exceed $50 billion. The Oversight Board has issued guidelines that limit the maturity of such notes to six months--though collections from asset sales may take up to eight years or more. Under these guidelines, notes would be of little help as a source of working capital. The RTC does not appear to have statutory authority to borrow from the public. Whether the RTC might be able to borrow from the Federal Financing Bank, an arm of the Treasury, is unclear. Expenditures from working capital raised through any of these types of agency borrowing would count as part of the deficit, regardless of whether the RTC uses notes or cash. Proceeds from the asset sales would subsequently reduce the deficit when received.

Some options have been suggested for raising working capital in the private markets: for example, through the Federal Home Loan Banks, or through a receivership that manages failed assets (which would sell securities while using assets from failed thrifts as collateral). Depending on how the transaction was structured, the spending of working capital so financed could conceivably be excluded from the federal deficit. However, these avenues would be costlier mechanisms than borrowing from the Treasury, which is the cheapest, easiest, and quickest source of working capital.

Legislation would be required for the RTC to borrow more than $5 billion from the Treasury. While the resulting spending would add to the deficit in the short term, the Congress could exclude this spending from the deficit for purposes of the Balanced Budget Act, just as unusual asset sales are currently excluded.

ceipts will be financed directly out of general funds.) Finally, whatever solution is adopted for the working capital issue will affect the size of deficits over the next several years. In every one of these examples, the spending that will appear in the budget will be a poor clue to the actual economic impact of the government's actions. CBO has consistently argued that all federal government spending and collections ought to be shown in the budget; CBO has also argued that some federal spending, including most deposit insurance outlays, does not directly stimulate the economy and merits separate treatment in the budget totals that are used to determine compliance with deficit targets.

Deposit insurance outlays follow an uneven path in the baseline, as Table III-2 and Figure III-4 show. Even though $30 billion of outlays in 1990 and 1991 are financed by nongovernment borrowing and are effectively excluded from the totals, budgetary outlays are high in both years. Outlays decline as the heavy initial pace of case resolutions slackens and as liquidation proceeds from early cases materialize. A spurt of outlays occurs in 1993, however, as a cap on spending by the new Saving Institutions Insurance Fund (SAIF) is lifted and weakened institutions require government action.

Net Interest

Net interest, one of the fastest-growing spending categories in the 1980s, continues to climb in the baseline projections as the government borrows to finance its deficit and to refinance its existing debt. Net interest primarily reflects the government's payments to holders of its debt; as an offset, it also reflects interest income received by the government on loans and cash balances. This interest income shrinks over the forecast horizon.

Net interest grows by about 7 percent between 1989 and 1990. Annual growth tapers off thereafter under the baseline assumptions. This pattern stems in part from modestly declining deficits and, hence, borrowing in the baseline projections. But more important, this pattern reflects the declines in interest rates that are assumed to occur. After climbing modestly later this year, both short- and long-term interest rates begin gradual declines, falling by 1995 to about two percentage points and one-half percentage point, respectively, below their current levels (as discussed in Chapter I). If interest rates remained

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at today's levels--as is plausible if the deficit is not reduced further--net interest costs would be about $15 billion higher in 1995.

Clearly, net interest projections are extremely sensitive to assumptions about interest rates. This sensitivity stems directly from the huge amounts of financing and refinancing conducted by the Treasury. Of the marketable debt outstanding at the end of 1995 in the baseline, about one-fourth reflects new securities issued in 1990 through 1995 to finance deficits; over one-half represents debt issued before 1990 but refinanced at some point during the six-year period; and only one-fifth reflects debt borrowed before 1990 and not refinanced during the six-year period.

Net interest is fundamentally determined by the government's borrowing from the public--necessitated by government deficits--and by interest rates. Net interest costs, in turn, affect the deficit and the amount that must be financed. But while net interest is clearly the most meaningful measure of the government's debt servicing costs, the budget features several seemingly contradictory measures of interest costs and federal debt. Much of this confusion results from intrabudgetary flows and, in particular, from the treatment of federal government trust funds. Table III-3 sheds light on these multiple measures of interest and debt.

As discussed in Chapter II, most federal government trust funds run substantial surpluses as conventionally measured and therefore have large reserves. By law, these reserves are invested in U.S. government securities. At the end of 1989, trust funds and similar government accounts held nearly $700 billion worth of Treasury securities, almost a quarter of the $2.9 trillion gross federal debt.

Gross interest costs reflect the Treasury's cost of financing the entire, or gross, public debt. Most of the gross debt is held by the public, predominantly in the form of marketable securities sold at auction to finance the government's deficits and to refinance its maturing securities. But because part of the gross debt is held by trust funds, the government simultaneously pays and collects some of this gross interest. By definition, intrabudgetary payments do not affect the total deficit. Gross interest includes these payments; net interest must subtract them. Net interest also subtracts interest income that is received

TABLE III-3. FEDERAL DEBT AND INTEREST COSTS IN THE CBO BASELINE (By fiscal year)

	Actual 1989	Projected 1990	1991	1992	1993	1994	1995
Net Interest Outlays (In billions of dollars)							
Interest on Public Debt (Gross interest)[a]	241	260	272	287	304	320	334
Interest Received by Trust Funds							
Social Security	-11	-16	-22	-27	-34	-42	-50
Other trust funds[b]	-41	-46	-49	-52	-55	-58	-61
Subtotal	-52	-63	-71	-79	-89	-100	-111
Other Interest[c]	-20	-18	-17	-16	-15	-15	-15
Total, Net Interest Outlays	169	180	185	192	199	205	209
Federal Debt, End of Year (In billions of dollars)							
Gross Federal Debt	2,866	3,131	3,403	3,681	3,979	4,279	4,584
Less: Debt Held by Government Accounts							
Social Security	157	223	297	383	481	593	721
Other government accounts[b]	520	584	646	705	764	824	884
Subtotal	677	807	943	1,088	1,245	1,417	1,605
Equals: Debt Held by the Public	2,189	2,324	2,460	2,593	2,734	2,862	2,979
Debt Subject to Limit	2,830	3,084	3,351	3,633	3,937	4,241	4,547
Federal Debt as a Percentage of GNP							
Debt Held by the Public	42.5	42.6	42.4	42.0	41.5	40.8	39.9

SOURCE: Congressional Budget Office.

a. Excludes interest costs of debt issued by agencies other than Treasury (primarily deposit insurance agencies).

b. Principally Civil Service Retirement, Military Retirement, Medicare, Unemployment Insurance, the Highway, and the Airport and Airway Trust Funds.

c. Primarily interest on loans.

from the public--for example, interest income on loans made by the government and on the Treasury's cash balances. The result of these subtractions is net interest, a truer measure of the government's overall debt servicing costs--that is, interest paid to those outside government. Table III-3 shows the components of interest costs and the analogous measures of federal debt: the gross federal debt (including trust fund holdings); and the far more useful measure, debt held by the public. Just under $2.2 trillion at the end of 1989, debt held by the public grows by almost $800 billion through 1995, approximately equal to the total deficit of the government over the same period.

While the gross federal debt is not a useful figure for economic or budget analysis, it is the most widely recognized measure of debt. The chief reason is that it roughly equals the figure that the Congress must vote on when it periodically raises the government's borrowing limit. This debt subject to statutory limit encompasses nearly the entire gross debt, with the exception of debt that is issued by federal agencies other than the Treasury (as discussed below). Debt subject to limit is shown in Table III-3. The current limit on debt, enacted last November, is $3,122.7 billion; CBO expects the government to reach the limit in October 1990, necessitating another increase.

Net interest outlays are gradually becoming a less comprehensive measure of the costs of government borrowing as agencies other than the Treasury borrow on their own initiative. These other agencies' debt, trivial before 1988, peaks at almost $40 billion in the middle years of the baseline projections. Before last year's passage of deposit insurance reform, the Federal Savings and Loan Insurance Corporation was financing its outlays primarily through issuance of its own promissory notes. These notes count as federal debt. (To a much smaller extent, the Federal Deposit Insurance Corporation did likewise.) The newly created RTC, too, is expected to issue some notes. Last fall, the Tennessee Valley Authority tapped the credit markets for $8 billion. Finally, REFCORP--the government-chartered enterprise created to raise funds for the government to clear up insolvent savings and loans--is selling $30 billion of its own securities. Unlike the other examples cited, REFCORP bonds do not count at all in the government debt totals. Nevertheless, REFCORP's interest costs will be largely borne by taxpayers and will affect the deficit. When agencies other than the Treasury raise funds for particular programs, their debt servicing costs, as a rule, show up as part of that program's outlays rather

than in net interest. With few exceptions, such agency debt issuance does not count against the government's debt limit.

Offsetting Receipts

Offsetting receipts are funds collected by the government that are recorded as negative outlays. More than half are intrabudgetary--that is, they simply balance payments elsewhere in the budget. These intrabudgetary receipts reflect payments by agencies to retirement and other funds on their employees' behalf; such payments are included in agency budgets, and a corresponding receipt is simultaneously recorded to reflect that the funds have not actually left the government.

The remaining offsetting receipts come from the public and represent voluntary, business-type transactions. Unlike revenues, they do not stem from the government's sovereign taxing powers. The largest item, Medicare premiums, grows from $12 billion in 1990 to $15 billion in 1995; these premiums mainly represent payments for SMI, the optional (and heavily subsidized) portion of Medicare that is elected by almost all eligible people. Other receipts from the public include timber and oil lease receipts, proceeds from the sale of electric power, and similar income.

THE FIVE-YEAR OUTLOOK FOR REVENUES

Baseline revenues are projected to exceed $1 trillion for the first time in 1990, totaling $1,067 billion. Revenues will grow by more than 6 percent in 1991 and by about 6 percent a year thereafter. This growth puts total revenues at $1,137 billion in 1991 and at $1,438 billion in 1995. Revenues in 1990 and 1991 made up 19.6 percent of GNP. After that, revenues grow somewhat slower than the overall economy, and the revenue share of GNP drifts down to 19.3 percent by 1994 (see Table III-4).

Recent History and Short-Run Projections

Revenues in fiscal year 1989 were $991 billion, almost exactly what CBO had projected in August. Personal taxes came in slightly higher than expected. Estimated and final payments by individuals--that is, income taxes that are not withheld from paychecks--were strong. Corporate income taxes came in slightly lower than expected in 1989.

Fiscal Years 1990 and 1991. Overall, total revenue growth slows in 1990 and 1991, consistent with the slowdown in nominal GNP growth described in Chapter I. In fact, corporate income tax receipts are estimated to be lower in 1990 than in 1989.

TABLE III-4. CBO BASELINE REVENUE PROJECTIONS BY SOURCE
(By fiscal year)

Major Source	Actual 1989	Base 1990	Projected 1991	1992	1993	1994	1995
			In Billions of Dollars				
Individual Income	446	490	529	564	602	641	682
Corporate Income	103	102	111	116	120	126	134
Social Insurance	359	388	412	437	465	495	526
Excise	34	36	34	32	33	34	35
Estate and Gift	9	9	10	10	10	11	11
Customs Duties	16	17	18	19	21	22	24
Miscellaneous	23	25	25	25	26	26	27
Total	991	1,067	1,137	1,204	1,277	1,355	1,438
			As a Percentage of GNP				
Individual Income	8.7	9.0	9.1	9.1	9.1	9.1	9.1
Corporate Income	2.0	1.9	1.9	1.9	1.8	1.8	1.8
Social Insurance	7.0	7.1	7.1	7.1	7.1	7.1	7.0
Excise	0.7	0.7	0.6	0.5	0.5	0.5	0.5
Estate and Gift	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Customs Duties	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Miscellaneous	0.4	0.5	0.4	0.4	0.4	0.4	0.4
Total	19.2	19.6	19.6	19.5	19.4	19.3	19.3

SOURCE: Congressional Budget Office.

Near-term revenue growth is affected by the two natural disasters that occurred in late 1989. Hurricane Hugo and California's Loma Prieta earthquake will depress revenues mainly by reducing profits, particularly profits reported by insurance companies. Both of these disasters occurred after the September 15 corporate income tax payment date. Their effects on receipts, therefore, will be felt in fiscal year 1990 as companies reduce tax payments to bring them in line with reduced liabilities. CBO estimates that the two disasters will reduce 1990 receipts by $2 billion to $3 billion.

One factor helps to ameliorate these effects: gains from the sale of capital assets appear to have increased during 1989 more than CBO projected. Since a large portion of taxes paid on capital gains is remitted with final tax returns near the April 15 filing deadline, gains realized in 1989 will boost 1990 receipts.

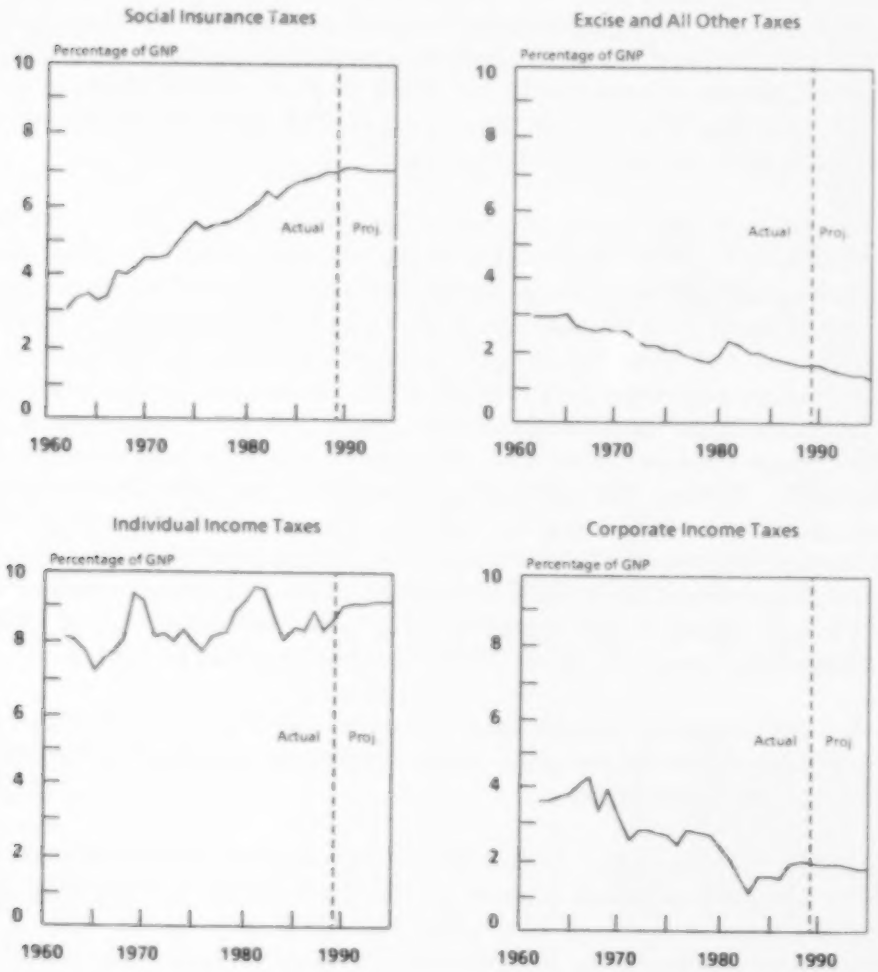
On balance, legislation increases receipts by about $22 billion in 1990 relative to 1989. Part of this increase reflects earlier legislation. The last scheduled increase in Social Security tax rates (contained in the Social Security Amendments of 1977), as well as changes in Social Security tax payments by the self-employed and the partial deductibility of those payments for purposes of the income tax (both contained in the Social Security Amendments of 1983), took effect on January 1, 1990. These changes boost total receipts by about $4 billion in fiscal year 1990. Second, the continuing phase-in of the 1986 Tax Reform Act's provisions broadening the base for the personal income tax, as well as the delayed effects of the act's lengthened asset lives for tax depreciation purposes, raise 1990 receipts by about $13 billion relative to 1989 levels. Finally, the Omnibus Budget Reconciliation Act of 1989 (discussed in Chapter II) raises 1990 revenues by about $5 billion.

In 1991, revenue growth keeps pace with GNP growth. Profits rebound, and growth in personal income improves, although it remains below that of recent years.

Longer-Run Projections. After 1991, revenues grow more slowly than GNP. Although personal income and Social Security taxes (including Hospital Insurance taxes) keep pace with GNP growth, all other tax sources remain stable or decline relative to GNP (see Figure III-5). Growth in federal unemployment insurance (UI) receipts tapers off because stable and low rates of unemployment leave the trust fund with

ample balances, allowing states to reduce their UI tax rates. Declining interest rates cause the growth in the Federal Reserve System's earnings on its portfolio to slow down over time. (These profits are returned to the government as receipts.) In addition, excise taxes, most of which are levied on a per-unit basis and some of which are scheduled to expire, drop as a share of GNP.

Figure III-5.
Revenues by Source as Shares of GNP



SOURCE: Congressional Budget Office.

Trends in Federal Government Tax Sources

Over the past several decades, the federal government's major tax sources have shifted in relative importance because of changes both in tax policy and in the economy. The trends in the ratios of tax sources to GNP are depicted in Figure III-5, and historical data are contained in Appendix E.

Personal Taxes. Over 81 percent of all federal revenues in fiscal year 1989 were collected from individual income taxes and social insurance contributions; CBO projects this to increase slightly to 84 percent by 1994. This increase represents a significant rise over the last three decades--from 60 percent in 1960--primarily as a result of legislated increases in social insurance taxes.

The individual income tax brings in close to 50 percent of all federal tax dollars collected, as it has for most of the last 30 years. These taxes have represented a stable 8 percent to 9 percent of GNP virtually every year (see Figure III-5). Income taxes somewhat exceeded 9 percent of GNP in periods of high inflation (before the system was indexed in 1985) but generally fell to about 8 percent in years following legislated tax reductions to offset inflation's tendency to push taxpayers into higher brackets. With the tax brackets, the standard deduction, and personal exemptions now indexed to protect taxpayers from such automatic tax increases induced by inflation, the individual income tax is projected to remain stable relative to GNP, even without legislative intervention. The baseline projects this share to be 9 percent of GNP each year through 1995.

Social insurance contributions have increased dramatically, both as a fraction of total revenues and in relation to GNP. An overwhelming share (92 percent) of these contributions represent taxes for Social Security and Hospital Insurance; the remaining contributions are for unemployment insurance, railroad retirement, and federal retirement. In the early 1960s, these contributions represented 16 percent of total revenues; they have more than doubled in importance, now contributing 36 percent of revenues. They represent 7 percent of GNP, up from about 3 percent 30 years ago.

The sharp upward trend in social insurance taxes is the result of legislated increases in payroll tax rates and expansions in both the portion of the population participating in the work force and the fraction of the work force covered by these taxes. These tax increases have largely corresponded to the growth in the entitlement programs for which these taxes are earmarked--Social Security, Medicare, and federal retirement. The last two legislated increases in Social Security tax rates have taken effect, one in January 1988 and the other in January 1990. One result of these and previous increases is that many families now pay more Social Security tax than income tax. (Further details on the changing "progressivity" of federal taxes is highlighted in Box III-3.)

No additional increases in Social Security tax rates (or other social insurance contributions) are scheduled under current law. Therefore, receipts from these tax sources are projected to remain stable relative to GNP. Because Social Security and other social insurance tax rates are flat and the tax bases are indexed to keep pace with inflation, this stability is built into the payroll tax system. Baseline projections show social insurance taxes at 36 percent to 37 percent of total revenues through 1995, and at 7 percent of GNP throughout the projection period.

Corporate Income Taxes. Corporate income taxes contributed over 10 percent of total taxes in 1989 and are projected to be 9 percent to 10 percent of the total each year between 1990 and 1995--just below 2 percent of GNP.

These projections represent a continuation of a long-established trend--the falling contribution of corporate taxes to the funding of federal activities. In the early 1960s, corporate income taxes represented over 20 percent of tax collections and about 4 percent of GNP. Both of these ratios have fallen more or less steadily since then. Like the increase in social insurance contributions, this long-run decline results partially from legislated changes in taxation. The enactment of increasingly generous acceleration of asset cost recovery, the reduction of the corporate tax rate, and the growth in the number of tax preferences for specific industries have eroded this source as a major contributor to federal coffers. In addition, the tax base has declined relative to GNP

because, among other reasons, companies have relied relatively more heavily on debt financing than on equity financing, thereby increasing deductions for interest payments.

Although the Tax Reform Act of 1986 increased corporate taxes substantially, this was not enough to reverse the overall trend. CBO projects that corporate tax payments will remain below 2 percent of GNP, about where they were in 1981 before the tax cuts of the early 1980s reduced them further. As a fraction of total revenues, corporate taxes decline slowly to around 9 percent by 1995.

Excise and Other Tax Sources. The remainder of federal revenues is generated by excise taxes on goods and services, tariffs on imported merchandise, estate and gift taxes, net earnings of the Federal Reserve System that are turned back to the Treasury, and numerous miscellaneous fees and charges. Taken together, these taxes accounted for 8 percent of total 1989 collections and 1.6 percent of GNP. These sources are projected to decline in importance over the five-year period to below 7 percent of total revenues and 1.3 percent of GNP. This is consistent with their long secular trend of declining importance; at the beginning of the 1960s, these revenue sources contributed 17 percent of all taxes and measured just over 3 percent of GNP.

The largest component of this group is excise taxes, which comprises more than 50 separate tax sources. Of these, Highway Trust Fund taxes on gasoline, diesel fuel, truck and tire sales, and road use by heavy trucks account for over 40 percent. Taxes on alcoholic beverages contribute about 15 percent; taxes on cigarettes and other tobacco products add another 12 percent. Airport and Airway Trust Fund taxes have been about 11 percent of all excise taxes but are projected to decline to 9 percent when scheduled reductions take place in 1991. The remaining one-fifth of excise taxes covers a variety of goods and services ranging from sporting equipment, to environmental pollutants, to use of the nation's waterways.

Roughly two-thirds of excise tax receipts are dedicated to specific spending purposes: the gasoline tax funds the nation's interstate highway program; coal taxes fund benefits for coal miners afflicted

BOX III-3
THE CHANGING PROGRESSIVITY OF THE FEDERAL TAX SYSTEM

Federal taxes in 1990 will be less progressive than they were in either 1977 or 1980 but more progressive than in 1985. The distribution of taxes is progressive if the ratio of taxes to income rises as incomes rise; is regressive if the ratio falls as incomes rise; and is proportional if the ratio is the same at all income levels. In 1990, the effective tax rate for the one-fifth (quintile) of people in families with the highest incomes will be 25.8 percent, slightly less than in 1977 or 1980. The effective tax rates for people in the lowest three quintiles will be higher than they were in either 1977 or 1980.

Effective federal tax rates--the percentage of family income paid in taxes--for people ranked in quintiles by their adjusted pretax family income are shown in the table below. (Adjusted pretax income includes all cash income plus realized capital gains and is measured before all federal taxes, including those collected from business but assumed to be borne by families.) People are assigned to quintiles based on family income divided by the poverty threshold for the appropriate family size. Tax rates for the lowest quintile were calculated excluding families with negative or zero incomes.

These estimated federal tax rates combine the effects on family income of the individual and corporate income taxes, the employee and employer portion of social insurance payroll taxes, and excise taxes other than the windfall profit tax. Consequently, these tax rates reflect specific assumptions about which families bear the economic burden of each tax.

Effective Federal Tax Rates

	Income Quintile				
Year	Lowest	Second	Middle	Fourth	Highest
1977	9.5	15.6	19.6	21.9	27.1
1980	8.4	15.7	20.0	23.0	27.3
1985	10.6	16.1	19.3	21.7	24.0
1990	9.7	16.7	20.3	22.5	25.8

The burden of the individual income tax and the employees' portion of the payroll tax is attributed to the families who directly pay these taxes. The portion of the payroll tax collected from employers is assumed to be shifted back onto employees in the form of lower wages. Excise taxes are assumed to be passed forward to individual consumers in higher prices on goods subject to the tax. Finally, although the corporate income tax is collected from corporations, families are assumed ultimately to bear its economic burden. Economists disagree, however, about who is affected by the corporate income tax. These estimates assume that half the corporate income tax is allocated to capital income and half to labor income. The method of allocation does not affect the main conclusions about how the distribution of the tax burden among income classes has changed over time.[1]

What has caused the federal tax system to become less progressive than it was a decade ago? The individual income tax has not become significantly less progressive over the period, although it did become less progressive between 1977 and 1985. However, recent changes in tax law--especially the Tax Reform Act of 1986--will make the tax more progressive in 1990 than it was in 1985, restoring 1990 effective tax rates approximately to their 1977 levels.

The major factor in reducing the progressivity of federal taxes is the increased reliance on social insurance payroll taxes. Because these taxes are levied only on earnings and only below a maximum amount, they are much less progressive than individual income taxes across most of the income distribution and, in fact, regressive in the upper part of the distribution. In 1990, 77 percent of families who pay social insurance payroll taxes will pay higher payroll taxes (counting both the employee and employer portions) than federal income taxes. In 1977, 58 percent of these families paid more in payroll taxes than in income taxes.

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1. For a discussion of this and other information on the distribution of federal taxes, see the following Congressional Budget Office publications: *The Changing Distribution of Federal Taxes: 1975-1990* (October 1987), and "The Changing Distribution of Federal Taxes: A Closer Look at 1980" (July 1988).

with black lung disease; the airline passenger ticket tax helps fund aviation spending; and Superfund taxes on chemical feedstocks fund environmental cleanup.

Many excise taxes are levied on a per-unit basis; some have not been addressed by legislation in many years. For example, the tax on table wine of 3 cents per bottle (750 ml) was last changed in 1951. The value of such taxes, relative to the economy, has therefore fallen. Some excise taxes are scheduled to expire during the projection period. As a group, excise taxes have declined steadily in importance for many years. The enactment in 1980 of the windfall profit tax on oil produced the only major break in this trend. The windfall profit tax dwindled in importance as oil prices fell and has since been repealed.

The Federal Reserve System earns profits on its portfolio, which includes both U.S. government securities of various maturities and foreign currencies. After covering its own costs, the Federal Reserve returns its excess earnings to the Treasury as federal receipts. As interest rates have risen since the 1970s, this revenue source has grown considerably but not enough to keep pace with overall economic growth or with total revenues. The downward drift in the ratio of Federal Reserve earnings to GNP and to total receipts continues in the forecast period because interest rates are projected to decline over time.

Other tax sources include customs duties on imported products, estate and gift taxes, and miscellaneous receipts, which comprise many fees, penalties, and other charges. In total, these receipts account for a constant share of GNP throughout the projection period.

BASELINE CREDIT PROJECTIONS

The federal government affects the allocation of credit by borrowing to finance deficits, by regulating financial activities, by lending money directly, and by guaranteeing loans extended by others. The credit budget summarizes these last two activities.

The credit budget supplements the federal budget's description of direct and guaranteed lending. Federal outlays generally show direct lending on a cash basis; that is, they count the government's outlays for direct loans and for guaranteed loans that have defaulted, net of

collections. Thus, programs with large transactions may report very small net outlays. The credit budget highlights the amount of gross lending and loan guarantee activity by these programs.

Direct loan obligations are expected to total $16 billion in 1990 and $19 billion in 1995, as shown in Table III-5. The Commodity Credit Corporation (CCC) accounts for much of the total. The Farmers

TABLE III-5. CBO BASELINE CREDIT PROJECTIONS
(By fiscal year, in billions of dollars)

Credit Activity	Actual 1989	Base 1990	Projected 1991	1992	1993	1994	1995
Direct Loan Obligations							
Commodity Credit Corporation	7	6	8	8	8	8	7
Other	9	10	10	10	11	11	11
Subtotal	16	16	18	18	18	19	19
Primary Loan Guarantees							
Federal Housing Administration	54	57	56	55	57	59	62
Veterans Administration	14	10	14	14	15	15	16
Stafford Student Loans[a]	12	13	13	14	14	14	14
Other	26	24	19	20	20	20	20
Subtotal	107	105	102	103	106	109	112
Total							
All Credit Activity	123	121	120	121	124	128	131

SOURCE: Congressional Budget Office

a. Formerly known as Guaranteed Student Loans

Home Administration, the Rural Electrification Administration, and the Export-Import Bank of the United States also generate large volumes of direct loans. For future years, the baseline assumes that direct loan obligations and guaranteed loan commitments, subject to annual loan limits in appropriation bills, grow by the inflation rate. Projections for programs without such limits (including the CCC and several others) represent CBO's best estimate of loan demand.

Commitments for guaranteed loans total $105 billion in 1990 and $112 billion in 1995; housing loan guarantees by the Federal Housing Administration and the Department of Veterans Affairs dominate this activity. Legislation enacted last fall replaced the veterans' loan guaranty program with a new loan guaranty and indemnity program. Under the new program, origination fees paid by veterans will vary with the loan-to-value ratio of their mortgage. The new law also increases the maximum no-down-payment amount that will be guaranteed from $144,000 to $184,000. These changes are expected to result in increases in guaranteed loan commitments of $0.4 billion in 1990 and $1 billion a year thereafter. Other major guarantors include the Stafford Loan program (formerly known as Guaranteed Student Loans) and, to a lesser extent, the Export-Import Bank. Under amendments enacted last fall, some Foreign Military Sales (FMS) loans became eligible for prepayment in 1990. These loans will be refinanced with private credits, almost wholly guaranteed by the U.S. government. FMS prepayment activity thus boosts the loan guarantee totals by almost $2 billion in 1990, as did similar prepayments in 1988 and 1989.

Both CBO and the Administration have long argued that current budgetary treatment of credit paints a misleading picture of the cost of federal credit activity. Credit programs, which by definition involve the exchange of cash for the promise to repay over time, are poorly addressed by an accounting system that is geared to measuring current-period cash flows. The present treatment distorts budgetary incentives in numerous ways: for example, by recording loan asset sales or prepayments as deficit reductions; and by encouraging the use of loan guarantees, which in the short run add nothing to the deficit (and which may actually generate guarantee fees).

CBO recently issued a report, *Credit Reform: Comparable Budget Costs for Cash and Credit*, analyzing proposed reforms in the bud-

getary treatment of federal credit activities. In this study, CBO recommended replacing credit cash flows for individual credit programs with the estimated subsidy costs to the government. Such costs would be paid by the credit-granting agencies to a central revolving fund. The Congressional budget process would redirect its focus to controlling these subsidy costs. Specific details of credit reform are less important than the overarching principle that the budget should recognize the long-term costs of credit at the time when the government agrees to incur these costs.

APPENDIXES

APPENDIX A

ANALYSIS OF CONGRESSIONAL BUDGET ESTIMATES

The Congressional budget resolution for fiscal year 1989 called for a deficit of $135.3 billion, slightly below the Balanced Budget Act target of $136 billion. When the fiscal year was over, however, the red ink totaled $152.1 billion, the tenth straight year that the actual deficit exceeded the budget resolution target. This appendix examines the reasons for the 1989 deficit overrun and reviews the experience of the 1980s.

FISCAL YEAR 1989

On November 20, 1987, Congressional leaders and President Reagan announced a budget agreement covering fiscal years 1988 and 1989. Most of this agreement was put in place through appropriation and reconciliation legislation for fiscal year 1988, which was enacted in December 1987. The agreement stipulated little additional deficit reduction for fiscal year 1989.

Both the Reagan Administration's 1989 budget and the 1989 Congressional budget resolution stayed within the framework of the bipartisan budget agreement. Compared with the Congressional Budget Office baseline, the budget resolution assumed only $5.5 billion in additional first-year deficit reduction--$1.4 billion from lower defense spending and $4.2 billion from additional asset sales and prepayments. Revenues and nondefense spending were assumed to be near baseline levels.

The 1989 budget resolution was based on the economic and technical estimating assumptions of the Administration's February 1988 budget and aimed for a deficit of $135.3 billion. The actual deficit turned out to be $152.1 billion, or $16.8 billion higher, as Table A-1 shows. If the budget resolution had used the assumptions for CBO's

March 1988 baseline budget projections, the projected deficit would have been $171.5 billion--$19.4 billion above the actual outcome.

Table A-2 divides the differences between the actual outcomes and the budget resolution estimates of revenues, outlays, and the deficit into those resulting from policy, economic, and technical assumptions. Policy assumptions specify the laws and practices that the budget resolution expects to apply--for some programs, those currently in force; for others, some proposed departure. In fiscal year 1989, differences in policy assumptions accounted for all of the $16.8 billion difference in the deficit estimate, with economic and technical differences offsetting each other.

Two unanticipated pieces of legislation were responsible for most of the policy differences. The Disaster Assistance Act, adopted in August 1988, provided $3.8 billion in drought relief for farmers. The Financial Institutions Reform, Recovery, and Enforcement Act, enact-

TABLE A-1. COMPARISON OF ACTUAL BUDGET TOTALS AND BUDGET RESOLUTION ESTIMATES FOR FISCAL YEAR 1989 (In billions of dollars)

	Revenues	Outlays	Deficit
Actual Totals	990.8	1,142.9	152.1
Using Budget Resolution Assumptions			
Budget Resolution	964.4	1,099.7	135.3
Difference[a]	26.4	43.2	16.8
Using CBO Assumptions			
Budget Resolution	954.0	1,125.5	171.5
Difference[a]	36.8	17.4	-19.4

SOURCES: Congressional Budget Office; Department of the Treasury.

a. Actual outcome less assumed value.

ed in August 1989, added $10.3 billion in outlays for resolving insolvent thrift institutions. In addition, nondefense discretionary appropriations added $2.0 billion more in outlays than the resolution assumed.

Unexpected administrative actions had little effect on total spending. Advancing the October 1, 1989, military paycheck to September 29 increased fiscal year 1989 defense outlays by $2.9 billion. Expanding the scope of Foreign Military Sales loans eligible for refinancing, however, resulted in $2.1 billion more in loan prepayments than assumed in the resolution. And reducing the reserves held by insurance carriers participating in the Federal Employees Health Benefits plan cut outlays by $1.4 billion.

TABLE A-2. SOURCES OF DIFFERENCES BETWEEN ACTUAL BUDGET TOTALS AND BUDGET RESOLUTION ESTIMATES FOR FISCAL YEAR 1989 (In billions of dollars)

	Revenues	Outlays	Deficit
Using Budget Resolution Assumptions			
Policy Assumptions	0.7	17.5	16.8
Economic Assumptions	33.5	13.9	-19.7
Technical Assumptions	-7.8	11.8	19.6
Total Differences	26.4	43.2	16.8
Using CBO Assumptions			
Policy Assumptions	0.7	17.5	16.8
Economic Assumptions	41.5	-3.2	-44.7
Technical Assumptions	-5.4	3.0	8.4
Total Differences	36.8	17.4	-19.4

SOURCE: Congressional Budget Office.

NOTE: Differences are actual outcomes less budget resolution assumptions.

A stronger-than-expected economy reduced the deficit by $19.7 billion compared with the budget resolution assumptions. Higher personal income, partly offset by lower corporate profits, caused revenues to exceed the target by $33.5 billion. Errors in economic assumptions also added $13.9 billion to outlays, mostly additional net interest costs resulting from higher interest rates.

Use of CBO's economic assumptions instead of the Administration's would have added $25 billion to the budget resolution deficit. The error in outlays would have been much smaller, because CBO's forecast of interest rates was considerably closer to the mark. The error in revenues would have been greater, however, because CBO's underestimate of personal taxes, which was close to the Administration's, was not offset by an overestimate of corporate income and taxes, as was the Administration's. CBO's estimate of corporate income taxes was close to the target.

Errors in the technical assumptions used for the budget resolution caused the actual deficit to exceed the target by $19.6 billion. Almost 60 percent of this error, or $11.2 billion, is attributable to using Administration rather than CBO estimates. Of the remaining $8.4 billion in technical differences, $5.4 billion represents an overestimate of revenues and $3.0 billion an underestimate of outlays.

On the revenue side, CBO had small technical differences in all the major revenue sources. Although CBO's technical errors in estimating outlays were small in the aggregate, there were substantial differences for individual programs. Outlays were higher than expected for technical reasons in national defense ($6.1 billion), deposit insurance ($6.5 billion), and net interest ($2.8 billion). The 1988 and 1989 droughts and other factors, however, reduced spending for farm price supports by $11.1 billion. Benefits for Supplementary Medical Insurance (Part B of Medicare) were also overestimated by $1.8 billion. The remaining technical estimating errors were smaller and largely offsetting.

TABLE A-3. SOURCES OF DIFFERENCES BETWEEN ACTUAL BUDGET TOTALS AND FIRST BUDGET RESOLUTION ESTIMATES FOR FISCAL YEARS 1980-1989 (In billions of dollars)

Fiscal Year	Assumptions			Total
	Policy	Economic	Technical	
Revenues				
1980	6.2	8.4	-3.5	11.1
1981	-3.7	5.0	-12.6	-11.2
1982	13.0	-51.9	-1.1	-40.0
1983	-4.6	-58.0	-2.7	-65.3
1984	-13.7	4.5	-3.9	-13.1
1985	-0.2	-20.0	3.3	-16.8
1986	-1.5	-23.0	-2.1	-26.6
1987	22.1	-27.0	6.7	1.7
1988	-10.9	3.6	-16.5	-23.8
1989	0.7	33.5	-7.8	26.4
Average Difference	0.7	-12.5	-4.0	-15.8
Average Absolute Difference	7.6	23.5	6.0	23.6
Outlays				
1980	19.6	12.4	15.6	47.6
1981	24.5	6.4	16.0	46.9
1982	1.2	24.1	7.7	32.9
1983	17.6	0.5	8.1	26.2
1984	1.5	7.1	-18.0	-9.4
1985	22.8	-5.2	-12.9	4.8
1986	14.2	-12.1	20.1	22.2
1987	6.8	-11.9	13.0	7.9
1988	-2.0	11.7	12.0	21.7
1989	17.5	13.9	11.8	43.2
Average Difference	12.4	4.7	6.4	24.4
Average Absolute Difference	12.8	10.5	13.5	26.3
Deficit				
1980	13.4	4.0	19.1	36.6
1981	28.2	1.4	28.6	58.1
1982	-11.8	76.0	8.8	73.0
1983	22.2	58.5	10.8	91.5
1984	15.2	2.7	-14.1	3.7
1985	23.0	14.8	-16.2	21.6
1986	15.7	10.9	22.2	48.8
1987	-15.3	15.1	6.3	6.2
1988	8.9	8.1	28.5	45.5
1989	16.8	-19.7	19.6	16.8
Average Difference	11.6	17.2	11.4	40.2
Average Absolute Difference	17.0	21.1	17.4	40.2

SOURCE: Congressional Budget Office.

NOTE: Differences are actual outcomes less budget resolution assumptions.

REVIEWING THE 1980s

The end of the decade provides an opportunity to review the accuracy of budget resolution estimates over a 10-year period. In every single year of the 1980s, the actual deficit exceeded the budget resolution target. The excess ranged from $3.7 billion in 1984 to $91.5 billion in 1983, as shown in Table A-3 on previous page, and averaged $40.2 billion. Relative to this record, the 1989 error of $16.8 billion was better than average.

Use of optimistic economic assumptions accounts for $17.2 billion, or 43 percent, of the average error in budget resolution estimates during the 1980s. The remaining difference is about equally divided between policy and technical assumptions. Fiscal year 1989 marks the first time that the economic assumptions used for the budget resolution were not too optimistic. The policy and technical differences, however, were above average.

APPENDIX B

CONCEPTS AND ASSUMPTIONS UNDERLYING THE CBO BUDGET BASELINE

The federal budget figures cited throughout this report are the latest estimates made by the Congressional Budget Office of revenues and spending for 1990 and the next five years. The estimates for 1990 reflect current law for revenues and permanently authorized spending, and incorporate final action on appropriations. For 1991 through 1995, revenue and spending estimates depend on CBO's economic forecast and on a conceptual framework that has evolved through longstanding practice and recent legislation.

CBO is required by section 308(c) of the Congressional Budget and Impoundment Control Act of 1974 (2 U.S.C. 639(c)) to produce five-year baseline budget projections annually, but it is not required to follow a prescribed methodology. Certain concepts and definitions were included in the Balanced Budget and Emergency Deficit Control Act of 1985 (the Balanced Budget Act), as amended by the Balanced Budget and Emergency Deficit Control Reaffirmation Act of 1987; these concepts, however, apply only to the one-year baseline used to determine whether sequestration will be necessary in the year ahead. With minor exceptions, CBO has elected to adopt those same concepts and definitions in its section 308(c) baseline budget projections for all years.

This appendix presents in two sections the conceptual framework underlying CBO's five-year budget projections. The first section defines the spending and revenue components of the budget, and the second describes how baseline projections would differ if exceptions to the rules in the Balanced Budget Act were allowed for certain programs.

DEFINITION OF THE BUDGET BASELINE

This section explains the major assumptions underlying estimates for expenditures and revenues in the budget baseline.

Expenditures

The Congress provides funding for certain federal programs directly, in authorization and other substantive legislation. Spending for all other federal programs is subject to annual review through the appropriation process.

Direct Spending. Provision for federal programs whose funding is specified in authorization or other substantive legislation, or in a permanent appropriation, is considered mandatory in each year's budget. Section 401(c)(2) of the Congressional Budget Act defines several types of direct spending authority, which cover entitlement programs such as Social Security and Unemployment Insurance and permanent appropriations for interest payments on the public debt.

Direct spending also includes appropriated entitlements--entitlement programs whose funding is provided in annual appropriation acts. Among these are benefit programs such as Medicaid, Supplemental Security Income, Aid to Families with Dependent Children, veterans' compensation and pension spending, and other programs. Further, the Balanced Budget Act specifies that the Food Stamp program, while not an appropriated entitlement, is to be included in the list of programs assumed to be fully funded. In addition to appropriated entitlements, CBO, the Office of Management and Budget (OMB), and the House and Senate Budget Committees have developed a common list of appropriations that are considered mandatory for the Balanced Budget Act. These include appropriations to make up for prior-year losses in the Farmers Home Administration funds, government payments to federal retirement trust funds, and payments to widows and heirs of Members of Congress. The CBO baseline projects full funding for each such program in the 1991-1995 period.

The baseline projections for direct spending programs represent CBO's current estimate of future spending under the baseline economic assumptions. The CBO baseline makes two exceptions to the Balanced Budget Act's general rule that expiring provisions of law that establish section 401(c)(2) spending authority expire as scheduled: Guaranteed Student Loans (now known as Stafford Loans) for new borrowers are extended beyond 1992; and Trade Adjustment Assistance is extended beyond 1993. As specified in the Balanced Budget Act, the baseline assumes extension of the Commodity Credit Corpo-

ration (CCC) farm price support program beyond its current expiration in 1990. The Food Stamp program is also included in the baseline because its authorizing legislation does not expire, even though no authorization of appropriations exists beyond 1990.

Annual Appropriations. Funding for certain appropriated programs may take the form of current budget authority, limitations on an agency's ability to obligate funds, or limitations on direct loans and loan guarantees. Baseline projections for this type of spending assume constant real funding levels in each year--that is, the base-year funding is raised by amounts that allow for annual price increases. The Balanced Budget Act specifies that these annual increments are to be derived separately for the nonpersonnel and personnel portions of spending in each program. The nonpersonnel portion is inflated by the economywide change in prices, as measured by the gross national product deflator. The personnel portion is inflated by a more complex process that takes into account the impact of pay raises, pay absorption (funding some portion of the increase in pay rates by hiring freezes and by reducing nonpersonnel spending), and changes in agencies' accrual payments to the retirement trust funds.

Table B-1 shows the calculation of the inflators. The nonpersonnel budget authority level in an appropriated account for fiscal year 1991, for example, is derived by increasing the fiscal year 1990 appropriation by 4.0 percent, which is CBO's projected 1991 growth rate for the GNP implicit deflator. If the account includes spending for civilian personnel, such as an agency's salary and expense appropriation, the fiscal year 1991 level for that portion would be calculated as follows: the fiscal year 1990 level would be increased by 3.6 percent to adjust for the 1991 cost of the January 1990 pay raise (since separate appropriations for the civilian pay raise were not provided) then by an additional 3.4 percent to account for CBO's projected 4.0 percent civilian pay raise for fiscal year 1991 (effective on October 1, 1990) with a 22 percent pay absorption rate applied to 70 percent of the costs. The result would be further increased by 0.5 percent to adjust for the added agency costs that stem from the new retirement system's coverage of more federal employees in 1991 than in 1990.

TABLE B-1. CALCULATING INFLATION FACTORS TO PROJECT DISCRETIONARY ACCOUNTS
(By fiscal year)

	1991	1992	1993	1994	1995
Inflating the Nonpersonnel Spending in Each Account					
GNP Deflator					
Annual increase	1.040	1.040	1.040	1.040	1.040
Cumulative increase	1.040	1.082	1.125	1.170	1.217
Inflating the Personnel Spending in Each Account					
Civilian Personnel					
Adjustment for full-year unabsorbed cost of previous pay raise	1.036	1.006	1.006	1.006	1.006
(times)					
Adjustment for budget-year pay raise	1.034	1.034	1.034	1.034	1.034
(times)					
Adjustment for increased FERS costs	1.005	1.005	1.005	1.005	1.005
(equals)					
Annual increase	1.077	1.045	1.045	1.045	1.045
Cumulative increase	1.077	1.125	1.176	1.229	1.284
Military Personnel					
Adjustment for full-year unabsorbed cost of previous pay raise	1.009	1.006	1.006	1.006	1.006
(times)					
Adjustment for budget-year pay raise	1.034	1.034	1.034	1.034	1.034
(times)					
Adjustment for accrual differences	0.996	0.997	0.996	0.998	0.998
(equals)					
Annual increase	1.039	1.037	1.036	1.038	1.038
Cumulative increase	1.039	1.077	1.116	1.158	1.202

SOURCE: Congressional Budget Office.

If the account includes spending for military personnel, the fiscal year 1991 level for that portion would be calculated as shown in the lower half of Table B-1. The fiscal year 1990 level would be increased by 0.9 percent to adjust for the 1991 cost of the January 1990 military pay raise. The 1990 appropriations contained funding for three-quarters of the January 1990 military pay raise of 3.6 percent, so the 1991 military pay amounts would have to be increased to fund the remaining one-quarter of the raise. This amount would be increased by an additional 3.4 percent to account for CBO's projected 4.0 percent military pay raise for fiscal year 1991 (effective on October 1, 1990), with a 22 percent pay absorption rate applied to 70 percent of the costs. The result would be decreased by 0.4 percent to adjust for the lower costs of the military retirement system in 1991.

In most cases, the level of projected outlays for each account is then calculated by applying an appropriate spendout rate--that is, a measure of how current budget authority is converted into a given year's outlays--and adding any outlays that are estimated to be made in the given year from budget authority appropriated in previous years.

Revenues

The CBO baseline includes revenues generated under current tax law. Excise taxes dedicated to trust funds scheduled to expire during the projection period are extended at current law rates through the end of the period, as specified in the Balanced Budget Act. Five such extensions are assumed: Airport and Airway Trust Fund taxes are extended beyond their scheduled expiration date of December 31, 1990; Hazardous Substance Superfund taxes are extended beyond their expiration date of December 31, 1991; Vaccine Injury Compensation Trust Fund taxes are extended beyond December 31, 1992; Highway Trust Fund taxes are extended beyond September 30, 1993; and Oil Spill Liability Trust Fund taxes are extended beyond their expected expiration in 1993.

ALTERNATIVE BUDGET BASELINE

The CBO baseline follows the Balanced Budget Act specifications, which direct that trust-fund-related excise taxes scheduled to expire in

the budget year be allowed to do so, and that discretionary programs be projected to remain at their inflation-adjusted 1990 appropriated levels. In forging a budget, however, the Congress occasionally adopts alternatives to this framework that take greater account of the programmatic nature of certain budget accounts. This section describes the changes that would be made to the current baseline using such programmatic assumptions. In the aggregate, the effect is minor: CBO's deficit estimate would be $0.6 billion lower in 1991, and $0.5 billion higher in 1995 (see Table B-2).

Revenues

In an alternative baseline, revenues earmarked for the Vaccine Injury Compensation Trust Fund and the Oil Spill Liability Trust Fund would not be extended. Both are relatively new programs with no history of legislated extensions. The Vaccine Injury Compensation Trust Fund imposes excise taxes on doses of certain vaccines to provide awards to people with vaccine-related injuries. Once a maximum number of awards has been made, the program will terminate; otherwise, the taxes will expire on December 31, 1992, unless the trust fund balance is negative (in that case, the taxes remain in effect until the balance is paid). The Oil Spill Liability Trust Fund receives the proceeds of a tax of 5 cents per barrel on domestic crude oil and imported petroleum products to fund the clean-up of accidental oil spills. The tax remains in effect until December 31, 1994, or until the unobligated balance in the trust fund exceeds $1 billion, whichever is earlier. Assuming that these two trust funds expire would have no effect on revenues before 1993, and would reduce revenues by quite small amounts each year thereafter (see Table B-2).

Expenditures

Spending projections in the baseline assume that appropriated programs will continue to receive funding at their inflation-adjusted 1990 level. In practice, however, the funding requirements for discretionary programs, such as subsidized housing and disaster relief, vary from year to year. Allowing for these funding variations would reduce

TABLE B-2. EFFECT ON BASELINE PROJECTIONS OF ALLOWING ALTERNATIVE ASSUMPTIONS FOR CERTAIN PROGRAMS
(By fiscal year, in billions of dollars)

	1991	1992	1993	1994	1995
Revenues					
Oil Spill Liability Trust Fund Taxes	0	0	-0.2	-0.2	-0.2
Vaccine Injury Compensation Trust Fund Taxes	0	0	-0.1	-0.1	-0.1
Revenue Effect, Total	0	0	-0.2	-0.3	-0.3
Budget Authority					
Subsidized Housing Renewals[a]	8.4	6.6	5.0	4.4	1.7
Census Bureau Funding	-1.1	-1.1	-1.4	-1.4	-1.6
Disaster Relief[b]	-1.9	-1.9	-2.0	-2.1	-2.2
Other	-0.1	c	-0.1	-0.2	-0.2
Budget Authority Effect, Total	5.3	3.5	1.5	0.7	-2.3
Outlays					
Subsidized Housing Renewals[a]	0.8	1.8	2.6	3.3	3.8
Census Bureau Funding	-0.9	-1.3	-1.3	-1.5	-1.5
Disaster Relief[b]	-0.6	-1.1	-1.7	-1.9	-2.1
Other	c	0.1	c	0.1	c
Outlay Effect, Total	-0.6	-0.5	-0.4	c	0.2
Deficit Effect	-0.6	-0.5	-0.1	0.3	0.5

SOURCE: Congressional Budget Office.

NOTE: A negative difference implies that the baseline projection would be lower by that amount if the alternative program assumption were used in the CBO baseline; a positive difference implies that the projection would be higher.

a. Assumes expiring subsidies renewed for five-year terms.

b. Includes disaster relief expenditures by the Federal Emergency Management Agency and the Federal-aid highways program.

c. Less than $50 million.

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total baseline outlays by about $0.6 billion in 1991 and by smaller amounts through 1994, but would increase outlays by about $0.2 billion in 1995 (see Table B-2).

Baseline estimates for subsidized housing do not include additional budget authority to renew contracts that expire in 1991 and later years. To fully fund the renewals, additional appropriations--ranging from $8.4 billion in 1991 to $1.7 billion in 1995--would be needed. Outlays would rise by about $0.8 billion in 1991, and by almost $4 billion in 1995. Reflecting the Census Bureau's scheduled activities would reduce outlays, because the baseline continues the inflation-adjusted 1990 appropriation needed to carry out the decennial census and overstates the bureau's smaller program needs in 1991 and beyond.

Federal spending in 1990 for disaster relief and highway reconstruction will be well above normal, reflecting the efforts to recover from Hurricane Hugo and California's Loma Prieta earthquake. Under baseline methodology, these atypical 1990 appropriations are projected through 1995; if disaster spending is assumed to return to levels reflecting average experience, outlays would be reduced by amounts rising from $0.6 billion in 1991 to $2.1 billion by 1995.

A small number of other discretionary accounts are candidates for programmatic assumptions. Recognizing program ceilings would result in lower baseline levels for a portion of the federal payment to the District of Columbia, the federal commitment to the Washington Metro system, and interstate transfer grants, all of which are capped by law. On the other hand, increased appropriations would be required after 1991 to fill the Strategic Petroleum Reserve at the annual rate of 75,000 barrels specified in the Energy Policy and Conservation Act, because the 1990 appropriation reflects a waiver of the minimum rate. Adjustments would also be made for the isotope production and distribution fund, which received what was intended to be a one-time appropriation in 1990, and for Congressional mail costs, which follow the electoral cycle. Making programmatic assumptions for these other accounts would add less than $0.1 billion to the baseline in all years of the projection period.

APPENDIX C

BASELINE SPENDING AND CREDIT PROJECTIONS BY BUDGET FUNCTION

Five broad categories of outlays--defense, entitlements and other mandatory spending, nondefense discretionary spending, net interest, and offsetting receipts--used in the body of this report are designed to reflect the way in which the Congress has approached spending decisions in recent budget resolutions. In this appendix, federal spending and credit projections are classified according to 19 budget functions.

The Congressional Budget Act of 1974, as amended, requires the Congress to include estimates of budget authority, outlays, new direct loan obligations, and new guaranteed loan commitments for each major budget function in its annual budget resolutions. The functional classification is a means of presenting spending estimates in terms of the broad national needs that federal programs are intended to address. Within a function, the programmatic objectives may be achieved in a variety of ways, including spending from Congressional appropriations, loans to private borrowers, and spending from earmarked trust funds.

National needs are grouped into 17 broad budget functions ranging from national defense, international affairs, energy, and agriculture programs to education, health, income security, and general government. The two remaining functions--net interest and undistributed offsetting receipts--do not address national needs but are included to make the budget complete. Two functions--general purpose fiscal assistance to state and local governments, and allowances--are no longer shown separately. General purpose fiscal assistance is now included in the general government function. The cost of future pay raises for federal civilian employees that had been in the allowance function is now distributed throughout the remaining functions in the baseline projections.

Some outlays are excluded from the on-budget totals by law. The Balanced Budget and Emergency Deficit Control Act of 1985 provides that the outlays (and revenues) of the Social Security trust funds are to be excluded from the on-budget aggregates. Outlays for the Social Security retirement, survivors, and disability programs are classified in budget function 650. Most spending in this function--representing the outlays of the Old-Age and Survivors Insurance and Disability Insurance trust funds for benefit payments, administrative expenses, and other miscellaneous costs--is treated as off-budget. Off-budget outlays in net interest (function 900) reflect the interest earned by the Social Security trust funds on their investments in Treasury securities, while the off-budget portion of function 950 (undistributed offsetting receipts) reflects the payroll tax paid by federal government agencies on behalf of workers covered under the program. Under the Omnibus Budget Reconciliation Act of 1989, the spending of the Postal Service is not counted for purposes of the Balanced Budget Act or the Congressional budget resolution and is therefore not included in these figures.

Since 1980, Congressional budget resolutions have also included a separate credit budget. The spending budget, which generally operates on a cash-flow basis, cannot accurately reflect the full impact of federal budgetary policies on the allocation of credit in the U.S. economy. In the spending budget, loans are recorded on a net basis--that is, new loans less repayments. Loan guarantees do not appear except in the case of a default. The credit budget remedies some of these shortfalls by presenting the gross amounts of new loans and loan guarantees. Most credit budget activity is concentrated in a few budget functions: international affairs, agriculture, commerce and housing credit, education, and veterans' programs.

The CBO baseline projections for budget authority, outlays, and credit are presented by budget function in Tables C-1, C-2, and C-3, respectively.

TABLE C-1. CBO BASELINE BUDGET AUTHORITY PROJECTIONS BY FUNCTION (By fiscal year, in billions of dollars)

Budget Function		Base 1990	Projected 1991	1992	1993	1994	1995
050	National Defense	302	316	328	342	355	370
150	International Affairs	18	19	20	21	22	23
250	General Science, Space, and Technology	15	15	16	17	17	18
270	Energy	5	6	6	6	7	7
300	Natural Resources and Environment	17	18	19	20	20	21
350	Agriculture	17	22	23	20	18	19
370	Commerce and Housing Credit	24	26	22	33	20	20
400	Transportation	31	32	33	35	36	38
450	Community and Regional Development	9	9	9	9	9	9
500	Education, Training, Employment, and Social Services	41	42	43	44	46	48
550	Health	60	67	74	81	90	99
570	Medicare	115	125	138	153	168	186
600	Income Security	183	192	200	209	220	228
650	Social Security						
	On-budget	5	4	4	5	5	6
	Off-budget	310	336	364	393	426	460
	Subtotal	315	340	368	398	431	465
700	Veterans Benefits and Services	31	32	33	34	35	36
750	Administration of Justice	12	14	14	15	15	16
800	General Government	11	11	12	12	12	13
900	Net Interest						
	On-budget	196	207	219	234	247	259
	Off-budget	-16	-22	-27	-34	-42	-50
	Subtotal	180	185	192	199	205	209
950	Undistributed Offsetting Receipts						
	On-budget	-31	-32	-34	-35	-37	-39
	Off-budget	-6	-6	-7	-7	-8	-9
	Subtotal	-37	-39	-41	-42	-45	-47
On-budget subtotal		1,059	1,125	1,180	1,253	1,307	1,376
Off-budget subtotal		288	309	330	352	376	401
Total		1,347	1,434	1,510	1,605	1,683	1,776

SOURCE: Congressional Budget Office.

TABLE C-2. CBO BASELINE OUTLAY PROJECTIONS BY FUNCTION
(By fiscal year, in billions of dollars)

Budget Function		Base 1990	Projected 1991	1992	1993	1994	1995
050	National Defense	297	307	318	328	345	355
150	International Affairs	15	17	18	18	19	19
250	General Science, Space, and Technology	14	15	16	16	17	18
270	Energy	3	4	4	5	5	5
300	Natural Resources and Environment	18	19	19	20	20	21
350	Agriculture	13	17	18	16	16	14
370	Commerce and Housing Credit	30	19	15	22	9	9
400	Transportation	29	31	32	34	35	36
450	Community and Regional Development	8	8	8	8	8	9
500	Education, Training, Employment, and Social Services	39	41	43	44	45	47
550	Health	57	65	73	80	89	98
570	Medicare	95	107	121	136	153	171
600	Income Security	146	156	163	171	181	189
650	Social Security						
	On-budget	5	4	4	5	5	6
	Off-budget	244	262	278	296	313	332
	Subtotal	249	266	283	300	319	338
700	Veterans Benefits and Services	29	31	32	33	36	36
750	Administration of Justice	10	13	14	15	15	16
800	General Government	10	11	12	12	12	13
900	Net Interest						
	On-budget	196	207	219	234	247	259
	Off-budget	-16	-22	-27	-34	-42	-50
	Subtotal	180	185	192	199	205	209
950	Undistributed Offsetting Receipts						
	On-budget	-31	-32	-34	-35	-37	-39
	Off-budget	-6	-6	-7	-7	-8	-9
	Subtotal	-37	-39	-41	-42	-45	-47
On-budget subtotal		984	1,041	1,095	1,163	1,220	1,283
Off-budget subtotal		222	234	244	254	264	273
Total		1,205	1,275	1,339	1,418	1,484	1,555

SOURCE: Congressional Budget Office.

TABLE C-3. CBO BASELINE CREDIT PROJECTIONS BY FUNCTION
(By fiscal year, in billions of dollars)

Budget Function			1989 Actual	1990 Base	Projected 1991	1992	1993	1994	1995
150	International Affairs	DL	2	2	2	2	2	2	2
		PG	12	8	7	7	7	8	8
270	Energy	DL	1	1	2	2	2	2	2
		PG	0	1	0	0	0	0	0
300	Natural Resources and Environment	DL	a	a	a	a	a	a	a
350	Agriculture	DL	8	7	9	9	9	9	9
		PG	6	7	7	7	7	7	7
370	Commerce and Housing Credit	DL	3	3	3	3	3	4	3
		PG	62	61	60	59	61	64	66
400	Transportation	DL	a	a	a	a	a	a	a
450	Community and Regional Development	DL	1	2	1	1	1	1	1
		PG	a	1	1	1	1	1	1
500	Education, Training, Employment, and Social Services	DL	a	a	a	a	a	a	a
		PG	12	13	13	14	14	14	14
550	Health	PG	a	a	a	a	a	a	a
600	Income Security	DL	a	a	a	a	a	a	a
700	Veterans Benefits and Services	DL	1	1	1	1	1	1	1
		PG	14	14	15	15	15	16	16
	Total	DL	16	16	18	18	18	19	19
		PG	107	105	102	103	106	109	112

SOURCE: Congressional Budget Office.

NOTES: DL = New direct loan obligations.
PG = New primary loan guarantee commitments.

a. Less than $500 million.

APPENDIX D

FEDERAL RECEIPTS AND EXPENDITURES IN THE NATIONAL INCOME AND PRODUCT ACCOUNTS

Both the budget and the federal sector of the National Income and Product Accounts (NIPA) measure the receipts and expenditures of the federal government. The national income accounts, published by the Department of Commerce, measure current income and production in all sectors of the economy and are the most widely used indicators of current economic activity. Though similar to the budget, the NIPA federal sector is generally more useful for analyzing the economic impact of federal government activity. The NIPA treatment of federal government activity differs from that of the budget in five ways: the netting and grossing of receipts against spending, the exclusion of lending and financial activities, timing adjustments, geographic coverage, and the inclusion of the off-budget Postal Service in the NIPA, as shown in Table D-1.

Although netting and grossing adjustments do not affect the total NIPA deficit, they do boost totals of both NIPA receipts and expenditures, compared with their budget counterparts. Differences in netting and grossing arise because two types of collections are treated as negative outlays in the budget but are moved to the receipts side in the NIPA. The first type of collection represents contributions by federal agencies to the Civil Service Retirement Trust Fund, Social Security, and other benefit plans. As an intrabudgetary transaction, this transfer represents both a cost to the employing agencies and a receipt to the retirement fund. The second type of collection consists of voluntary payments (such as Medicare premiums and mineral leases), which are also recorded as negative outlays. Clearly, moving these collections from expenditures to receipts does not affect the measured deficit, but it more accurately depicts the government's total collections from all sources and its spending for all purposes.

Lending and financial transactions that involve only the exchange of existing assets and liabilities are generally excluded from the NIPA, since they generate no current income or output. For example, the sale

TABLE D-1. RELATIONSHIP OF THE BUDGET TO THE FEDERAL SECTOR OF THE NATIONAL INCOME AND PRODUCT ACCOUNTS (By fiscal year, in billions of dollars)

	Actual 1989	Base 1990	Projected 1991	1992	1993	1994	1995
Receipts							
Total Revenues (Budget Basis)[a]	991	1,067	1,137	1,204	1,277	1,355	1,438
Differences							
Netting and grossing							
Government contributions for employee retirement	42	44	47	50	53	56	60
Medicare premiums	12	12	12	13	13	14	15
Other	9	8	7	8	7	8	8
Geographic exclusions	-2	-2	-2	-2	-2	-3	-3
Other	-4	-12	-3	2	2	3	4
Statistical discrepancy	-15	b	b	b	b	b	b
Total differences	41	49	61	69	73	79	85
Total Receipts (NIPA Basis)	1,032	1,116	1,198	1,273	1,350	1,434	1,523
Expenditures							
Total Outlays (Budget Basis)[a]	1,143	1,205	1,275	1,339	1,418	1,484	1,555
Differences							
Netting and grossing							
Government contributions for employee retirement	42	44	47	50	53	56	60
Medicare premiums	12	12	12	13	13	14	15
Other	9	8	7	8	7	8	8
Lending and financial transactions							
Deposit insurance	-21	-26	-16	-12	-19	-6	-7
Other	-2	-5	-6	-6	-6	-7	-7
Defense timing adjustment	-3	6	2	2	1	-3	c
Geographic exclusions	-6	-7	-7	-8	-8	-8	-9
Postal (off-budget)	d	2	1	-1	1	-1	c
Other	3	2	c	c	c	-1	c
Statistical discrepancy	7	b	b	b	b	b	b
Total differences	40	36	39	45	43	52	61
Total Expenditures (NIPA Basis)	1,183	1,241	1,315	1,384	1,460	1,536	1,616
Deficits							
Total Deficit (Budget Basis)[a]	152	138	138	135	141	130	118
Differences							
Lending and financial	-23	-31	-23	-18	-25	-12	-14
Defense timing adjustment	-3	6	2	2	1	-3	c
Geographic exclusions	-4	-5	-5	-5	-6	-6	-6
Other	7	17	4	-2	-1	-6	-4
Statistical discrepancy	22	c	c	c	c	c	c
Total differences	-1	-13	-21	-24	-31	-27	-24
Total Deficit (NIPA basis)	151	125	117	111	110	102	93

SOURCE: Congressional Budget Office.

a. Includes Social Security.

b. After 1989, no discrepancy is projected.

c. Less than $500 million.

d. The Postal Service was on-budget in 1989.

of a government asset, such as Conrail, reduces the budget deficit but has no effect on the NIPA deficit. Similarly, direct lending by the Export-Import Bank, the Farmers Home Administration, and other agencies is excluded from the NIPA, as are any payments by the government to make good on guaranteed loans in default. (Interest paid or received in the course of financial transactions is reflected in the NIPA federal sector.) Bonuses on Outer Continental Shelf land leases--much smaller now than in the early 1980s--also reflect the exchange of existing assets and are excluded from the NIPA. Nonrecourse agricultural loans are an exception to the general rule. Many of these loans, extended by the Commodity Credit Corporation, are not repaid but instead result in the government's acquisition of crops pledged as collateral. The income and product accounts count these loans as additional nondefense purchases when they are made and as a reduction in purchases if they are subsequently repaid and CCC inventories are reduced.

Similarly, spending for deposit insurance--notably to resolve insolvent savings and loan institutions--is largely excluded from the NIPA. Spending for deposit insurance is akin to payments for loan defaults and does not directly generate higher profits or other income. Therefore, it is excluded from the NIPA measures of federal spending.

Timing differences occur because the budget logs most transactions (except interest owed to the public) on a cash basis, while the NIPA federal sector may substitute an accrual measure, where appropriate. On the receipts side, the most important difference in timing is the recording of corporate profit taxes in the NIPA at the time the tax liability is incurred, which may be months (or years) before the tax payment is deposited in the Treasury. This difference is especially significant when corporate profits fluctuate sharply, as they are projected to do in 1989 and 1990. On the expenditures side, the only major example is the defense timing adjustment. Primarily, it adjusts the NIPA to record purchases of major weapons systems at the time of delivery rather than at the time payment is made. Advancing the October 1, 1989, payday for military personnel to September 29, 1989, is also reflected as a change in the defense timing adjustment rather than a change in government purchases of goods and services.

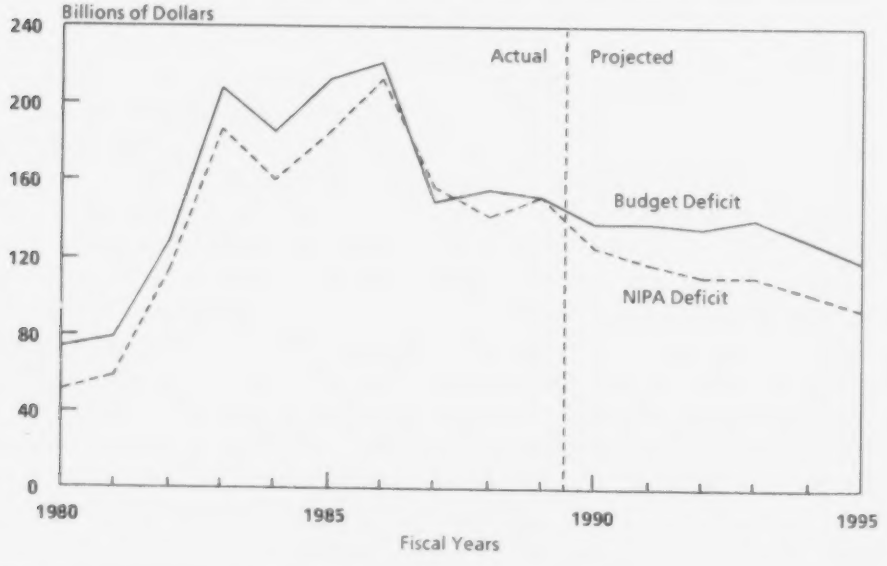
Differences in coverage between the budget and NIPA largely reflect the exclusion of Puerto Rico, the Virgin Islands, and other terri-

tories for purposes of computing the gross national product and related data series in the NIPA.

Excluding the Postal Service from budget totals, as required by the Omnibus Budget Reconciliation Act of 1989, reduces the reported budget deficit by $2.4 billion in fiscal year 1990. The NIPA includes the activities of the Postal Service because this accounting change does not affect the economic impact of the federal sector.

During the past 10 years, the NIPA deficit and the budget deficit have generally paralleled each other, with the NIPA deficit several billion dollars lower than the budget deficit (see Figure D-1). Both measures show deficits gradually falling off after peaking in 1986. Variations in the relationship between the two have been dominated by the large swings in lending and financial exclusions. During 1987, when

Figure D-1.
Deficit as Measured by the National Income and Product Accounts and the Budget



SOURCES: Congressional Budget Office; Department of Commerce, Bureau of Economic Analysis.

TABLE D-2. PROJECTIONS OF BASELINE RECEIPTS AND EXPENDITURES ON A NATIONAL INCOME AND PRODUCT ACCOUNTS BASIS
(By fiscal year, in billions of dollars)

	Actual 1989	Base 1990	Projected 1991	1992	1993	1994	1995
Receipts							
Personal Tax and Nontax Receipts	448	497	538	576	614	653	695
Corporate Profits Tax Accruals	111	115	129	137	142	149	158
Indirect Business Tax and Nontax Accruals	58	61	59	59	61	64	67
Contributions for Social Insurance	415	443	472	501	533	567	603
Total Receipts	1,032	1,116	1,198	1,273	1,350	1,434	1,523
Expenditures							
Purchases of Goods and Services							
Defense	302	308	316	327	339	352	368
Nondefense	101	109	120	125	131	136	141
Total	404	417	436	452	469	489	509
Transfer Payments	463	494	532	569	610	654	700
Grants-in-Aid to State and Local Governments	117	126	139	148	157	166	177
Net Interest Paid	167	182	188	194	202	207	210
Subsidies Less Current Surplus of Government Enterprises	33	21	21	20	22	19	20
Total Expenditures	1,183	1,241	1,315	1,384	1,460	1,536	1,616
Deficit							
Deficit	151	125	117	111	110	102	93

SOURCE: Congressional Budget Office.

lending and financial exclusions were at their 10-year low, the NIPA deficit actually exceeded the budget deficit by $8 billion.

In CBO's current baseline projections, the NIPA deficit generally runs $20 billion to $30 billion below the budget deficit. The projected high level of government spending on deposit insurance is largely responsible for this gap. In 1993, relatively large projected spending on deposit insurance coincides with a projected $31 billion gap between the budget and NIPA deficits. In 1990, however, the gap is unusually small because of an increase in NIPA expenditures resulting from the shift of the military pay date and a large timing adjustment in NIPA receipts.

Although the relationship between the two measures--the budget and the NIPA--is clearly defined, the actual data contain an unusually large and unexplainable statistical discrepancy in 1989. Two ways of deriving the NIPA deficit for fiscal year 1989 yield different results. According to the Department of Commerce, when the deficit is derived by summing the NIPA components of federal-sector spending less revenues, the deficit is $151 billion. When Commerce adjusts the budget figures to match the NIPA's federal sector, the resulting NIPA deficit is $129 billion. The difference is shown in Table D-1 and amounts to $22 billion in 1989. CBO does not project such a discrepancy in future years.

The NIPA federal sector attempts to measure budget transactions according to their economic significance. Government purchases of goods and services, which are subdivided into defense and nondefense, directly affect GNP. The other classifications--grants-in-aid, transfer payments, net interest, and subsidies less current surplus--reflect government payments to individuals or to state and local governments, which in turn purchase goods and services. These types of federal spending therefore have a less direct effect on GNP. Table D-2 (on previous page) shows estimates of federal receipts and expenditures on a NIPA basis, consistent with current CBO baseline budget projections.

APPENDIX E

HISTORICAL BUDGET DATA

Historical budget data consistent with the budget projections in Chapter II are shown in this appendix for fiscal years 1962 through 1989. The data are shown both in nominal dollars and as a percentage of gross national product. Federal revenues, outlays, deficit or surplus, and debt held by the public are shown in Tables E-1 and E-2. Revenues and outlays contain both on-budget and off-budget components. All federal government receipts and outlays are on-budget except those for Social Security, which is excluded under the provisions of the Balanced Budget and Emergency Deficit Control Act of 1985. Outlays for the Postal Service, which are not included in the budget projections for 1990 through 1995 in Chapter II, are included in the historical data in this appendix.

The major sources of federal revenue (including off-budget revenues) are presented in Tables E-3 and E-4. Social insurance taxes and contributions include employer and employee payments for Social Security, Medicare, Railroad Retirement, and Unemployment Insurance, and pension contributions by federal workers. Excise taxes are levied on certain products and services, such as gasoline, alcohol, and air travel. The windfall profit tax on domestic oil producers was enacted in 1980, and is classified as an excise tax. Miscellaneous receipts consist mainly of deposits of earnings by the Federal Reserve System.

Total on- and off-budget outlays for major spending categories are shown in Tables E-5 and E-6. National defense and net interest are identical to the budget functions with the same titles (functions 050 and 900, respectively). Entitlements and other mandatory spending include programs for which spending is governed by laws making all who meet certain requirements eligible to receive payments. Additional detail on entitlement programs is shown in Tables E-7 and E-8. Nondefense discretionary spending consists of all programs other than defense that are controlled through the appropriation process. Offsetting receipts include the federal government's contribution toward employee retirement, fees and charges such as Medicare premiums, and receipts from the use of federally controlled land and offshore territory.

TABLE E-1. REVENUES, OUTLAYS, DEFICIT, AND DEBT HELD BY THE PUBLIC, FISCAL YEARS 1962-1989
(In billions of dollars)

Fiscal Year	Revenues			Outlays			Deficit (-) or Surplus	Debt Held by the Public
	On-Budget	Off-Budget	Total	On-Budget	Off-Budget	Total		
1962	87.4	12.3	99.7	93.3	13.5	106.8	-7.1	248.0
1963	92.4	14.2	106.6	96.4	15.0	111.3	-4.8	254.0
1964	96.2	16.4	112.6	102.8	15.7	118.5	-5.9	256.8
1965	100.1	16.7	116.8	101.7	16.5	118.2	-1.4	260.8
1966	111.7	19.1	130.8	114.8	19.7	134.5	-3.7	263.7
1967	124.4	24.4	148.8	137.0	20.4	157.5	-8.6	266.6
1968	128.1	24.9	153.0	155.8	22.3	178.1	-25.2	289.5
1969	157.9	29.0	186.9	158.4	25.2	183.6	3.2	278.1
1970	159.3	33.5	192.8	168.0	27.6	195.6	-2.8	283.2
1971	151.3	35.8	187.1	177.3	32.8	210.2	-23.0	303.0
1972	167.4	39.9	207.3	193.8	36.9	230.7	-23.4	322.4
1973	184.7	46.1	230.8	200.1	45.6	245.7	-14.9	340.9
1974	209.3	53.9	263.2	217.3	52.1	269.4	-6.1	343.7
1975	216.6	62.5	279.1	271.9	60.4	332.3	-53.2	394.7
1976	231.7	66.4	298.1	302.2	69.6	371.8	-73.7	477.4
1977	278.7	76.8	355.6	328.5	80.7	409.2	-53.6	549.1
1978	314.2	85.4	399.6	369.1	89.7	458.7	-59.2	607.1
1979	365.3	98.0	463.3	403.5	100.0	503.5	-40.2	639.8
1980	403.9	113.2	517.1	476.6	114.3	590.9	-73.8	709.3
1981	469.1	130.2	599.3	543.0	135.2	678.2	-78.9	784.8
1982	474.3	143.5	617.8	594.3	151.4	745.7	-127.9	919.2
1983	453.2	147.3	600.6	661.2	147.1	808.3	-207.8	1,131.0
1984	500.4	166.1	666.5	686.0	165.8	851.8	-185.3	1,300.0
1985	547.9	186.2	734.1	769.5	176.8	946.3	-212.3	1,499.4
1986	568.9	200.2	769.1	806.8	183.5	990.3	-221.2	1,736.2
1987	640.8	213.4	854.1	810.0	193.9	1,003.8	-149.7	1,888.1
1988	667.5	241.5	909.0	861.4	202.7	1,064.1	-155.1	2,050.2
1989	727.1	263.7	990.8	931.6	211.2	1,142.9	-152.1	2,189.3

SOURCE: Congressional Budget Office.

TABLE E-2. REVENUES, OUTLAYS, DEFICIT, AND DEBT HELD BY THE PUBLIC, FISCAL YEARS 1962-1989
(As a percentage of GNP)

Fiscal Year	Revenues			Outlays			Deficit (-) or Surplus	Debt Held by the Public
	On-Budget	Off-Budget	Total	On-Budget	Off-Budget	Total		
1962	15.7	2.2	17.9	16.7	2.4	19.2	-1.3	44.5
1963	15.7	2.4	18.1	16.4	2.5	18.9	-0.8	43.2
1964	15.3	2.6	17.9	16.3	2.5	18.8	-0.9	40.8
1965	14.9	2.5	17.4	15.1	2.5	17.6	-0.2	38.8
1966	15.1	2.6	17.7	15.5	2.7	18.2	-0.5	35.7
1967	15.7	3.1	18.7	17.2	2.6	19.8	-1.1	33.6
1968	15.1	2.9	18.0	18.3	2.6	21.0	-3.0	34.1
1969	17.0	3.1	20.1	17.0	2.7	19.8	0.3	29.9
1970	16.1	3.4	19.5	17.0	2.8	19.8	-0.3	28.6
1971	14.3	3.4	17.7	16.8	3.1	19.9	-2.2	28.7
1972	14.5	3.5	18.0	16.8	3.2	20.0	-2.0	28.0
1973	14.4	3.6	18.0	15.6	3.6	19.2	-1.2	26.6
1974	14.8	3.8	18.6	15.3	3.7	19.0	-0.4	24.3
1975	14.2	4.1	18.3	17.9	4.0	21.8	-3.5	25.9
1976	13.6	3.9	17.6	17.8	4.1	21.9	-4.3	28.1
1977	14.4	4.0	18.4	17.0	4.2	21.2	-2.8	28.4
1978	14.5	3.9	18.4	17.0	4.1	21.1	-2.7	28.0
1979	14.9	4.0	18.9	16.5	4.1	20.6	-1.6	26.1
1980	15.1	4.2	19.4	17.8	4.3	22.1	-2.8	26.6
1981	15.7	4.4	20.1	18.2	4.5	22.7	-2.6	26.3
1982	15.1	4.6	19.7	18.9	4.8	23.8	-4.1	29.3
1983	13.6	4.4	18.1	19.9	4.4	24.3	-6.3	34.0
1984	13.6	4.5	18.1	18.6	4.5	23.1	-5.0	35.3
1985	13.9	4.7	18.6	19.5	4.5	23.9	-5.4	37.9
1986	13.6	4.8	18.4	19.3	4.4	23.7	-5.3	41.5
1987	14.5	4.8	19.3	18.3	4.4	22.7	-3.4	42.6
1988	13.9	5.0	19.0	18.0	4.2	22.2	-3.2	42.8
1989	14.1	5.1	19.2	18.1	4.1	22.2	-2.9	42.5

SOURCE: Congressional Budget Office.

TABLE E-3. REVENUES, BY MAJOR SOURCE, FISCAL YEARS 1962-1989 (In billions of dollars)

Fiscal Year	Individual Income Taxes	Corporate Income Taxes	Social Insurance Taxes and Contributions	Excise Taxes	Estate and Gift Taxes	Customs Duties	Miscellaneous Receipts	Total Revenues
1962	45.6	20.5	17.0	12.5	2.0	1.1	0.8	99.7
1963	47.6	21.6	19.8	13.2	2.2	1.2	1.0	106.6
1964	48.7	23.5	22.0	13.7	2.4	1.3	1.1	112.6
1965	48.8	25.5	22.2	14.6	2.7	1.4	1.6	116.8
1966	55.4	30.1	25.5	13.1	3.1	1.8	1.9	130.8
1967	61.5	34.0	32.6	13.7	3.0	1.9	2.1	148.8
1968	68.7	28.7	33.9	14.1	3.1	2.0	2.5	153.0
1969	87.2	36.7	39.0	15.2	3.5	2.3	2.9	186.9
1970	90.4	32.8	44.4	15.7	3.6	2.4	3.4	192.8
1971	86.2	26.8	47.3	16.6	3.7	2.6	3.9	187.1
1972	94.7	32.2	52.6	15.5	5.4	3.3	3.6	207.3
1973	103.2	36.2	63.1	16.3	4.9	3.2	3.9	230.8
1974	119.0	38.6	75.1	16.8	5.0	3.3	5.4	263.2
1975	122.4	40.6	84.5	16.6	4.6	3.7	6.7	279.1
1976	131.6	41.4	90.8	17.0	5.2	4.1	8.0	298.1
1977	157.6	54.9	106.5	17.5	7.3	5.2	6.5	355.6
1978	181.0	60.0	121.0	18.4	5.3	6.6	7.4	399.6
1979	217.8	65.7	138.9	18.7	5.4	7.4	9.3	463.3
1980	244.1	64.6	157.8	24.3	6.4	7.2	12.7	517.1
1981	285.9	61.1	182.7	40.8	6.8	8.1	13.8	599.3
1982	297.7	49.2	201.5	36.3	8.0	8.9	16.2	617.8
1983	288.9	37.0	209.0	35.3	6.1	8.7	15.6	600.6
1984	298.4	56.9	239.4	37.4	6.0	11.4	17.0	666.5
1985	334.5	61.3	265.2	36.0	6.4	12.1	18.5	734.1
1986	349.0	63.1	283.9	32.9	7.0	13.3	19.9	769.1
1987	392.6	83.9	303.3	32.5	7.5	15.0	19.3	854.1
1988	401.2	94.2	334.3	35.5	7.6	16.2	19.9	909.0
1989	445.7	103.3	359.4	34.4	8.7	16.3	22.9	990.8

SOURCE: Congressional Budget Office.

TABLE E-4. REVENUES, BY MAJOR SOURCE, FISCAL YEARS 1962-1989 (As a percentage of GNP)

Fiscal Year	Individual Income Taxes	Corporate Income Taxes	Social Insurance Taxes and Contributions	Excise Taxes	Estate and Gift Taxes	Customs Duties	Miscellaneous Receipts	Total Revenues
1962	8.2	3.7	3.1	2.2	0.4	0.2	0.2	17.9
1963	8.1	3.7	3.4	2.2	0.4	0.2	0.2	18.1
1964	7.7	3.7	3.5	2.2	0.4	0.2	0.2	17.9
1965	7.3	3.8	3.3	2.2	0.4	0.2	0.2	17.4
1966	7.5	4.1	3.5	1.8	0.4	0.2	0.3	17.7
1967	7.7	4.3	4.1	1.7	0.4	0.2	0.3	18.7
1968	8.1	3.4	4.0	1.7	0.4	0.2	0.3	18.0
1969	9.4	3.9	4.2	1.6	0.4	0.2	0.3	20.1
1970	9.1	3.3	4.5	1.6	0.4	0.2	0.3	19.5
1971	8.2	2.5	4.5	1.6	0.4	0.2	0.4	17.7
1972	8.2	2.8	4.6	1.3	0.5	0.3	0.3	18.0
1973	8.1	2.8	4.9	1.3	0.4	0.2	0.3	18.0
1974	8.4	2.7	5.3	1.2	0.4	0.2	0.4	18.6
1975	8.0	2.7	5.6	1.1	0.3	0.2	0.4	18.3
1976	7.7	2.4	5.3	1.0	0.3	0.2	0.5	17.6
1977	8.2	2.8	5.5	0.9	0.4	0.3	0.3	18.4
1978	8.3	2.8	5.6	0.8	0.2	0.3	0.3	18.4
1979	8.9	2.7	5.7	0.8	0.2	0.3	0.4	18.9
1980	9.1	2.4	5.9	0.9	0.2	0.3	0.5	19.4
1981	9.6	2.0	6.1	1.4	0.2	0.3	0.5	20.1
1982	9.5	1.6	6.4	1.2	0.3	0.3	0.5	19.7
1983	8.7	1.1	6.3	1.1	0.2	0.3	0.5	18.1
1984	8.1	1.5	6.5	1.0	0.2	0.3	0.5	18.1
1985	8.5	1.6	6.7	0.9	0.2	0.3	0.5	18.6
1986	8.3	1.5	6.8	0.8	0.2	0.3	0.5	18.4
1987	8.9	1.9	6.8	0.7	0.2	0.3	0.4	19.3
1988	8.4	2.0	7.0	0.7	0.2	0.3	0.4	19.0
1989	8.7	2.0	7.0	0.7	0.2	0.3	0.4	19.2

SOURCE: Congressional Budget Office.

TABLE E-5. OUTLAYS FOR MAJOR SPENDING CATEGORIES, FISCAL YEARS 1962-1989 (In billions of dollars)

Fiscal Year	National Defense	Entitlements and Other Mandatory Spending	Nondefense Discretionary Spending	Net Interest	Offsetting Receipts	Total Outlays
1962	52.3	30.7	23.9	6.9	-7.0	106.8
1963	53.4	33.2	25.1	7.7	-8.1	111.3
1964	54.8	34.4	29.0	8.2	-7.9	118.5
1965	50.6	34.7	32.3	8.6	-8.0	118.2
1966	58.1	37.5	38.1	9.4	-8.5	134.5
1967	71.4	45.3	40.8	10.3	-10.3	157.5
1968	81.9	52.3	43.6	11.1	-10.8	178.1
1969	82.5	58.5	41.1	12.7	-11.1	183.6
1970	81.7	66.2	45.0	14.4	-11.6	195.6
1971	78.9	80.6	50.1	14.8	-14.2	210.2
1972	79.2	94.2	56.1	15.5	-14.2	230.7
1973	76.7	110.2	59.6	17.3	-18.1	245.7
1974	79.3	124.4	65.4	21.4	-21.3	269.4
1975	86.5	156.4	84.7	23.2	-18.5	332.3
1976	89.6	182.8	92.4	26.7	-19.7	371.8
1977	97.2	196.5	107.2	29.9	-21.6	409.2
1978	104.5	216.3	125.5	35.4	-23.0	458.7
1979	116.3	234.2	136.3	42.6	-26.1	503.5
1980	134.0	277.2	157.6	52.5	-30.3	590.9
1981	157.5	320.4	170.8	68.7	-39.2	678.2
1982	185.3	356.0	156.6	85.0	-37.2	745.7
1983	209.9	398.8	156.0	89.8	-46.1	808.3
1984	227.4	394.7	163.9	111.1	-45.3	851.8
1985	252.7	437.3	174.9	129.4	-48.0	946.3
1986	273.4	454.8	173.2	136.0	-47.0	990.3
1987	282.0	472.4	165.1	138.6	-54.2	1,003.8
1988	290.4	502.7	177.2	151.7	-58.0	1,064.0
1989	303.5	543.6	191.0	168.9	-64.2	1,142.9

SOURCE: Congressional Budget Office.

TABLE E-6. OUTLAYS FOR MAJOR SPENDING CATEGORIES, FISCAL YEARS 1962-1989 (As a percentage of GNP)

Fiscal Year	National Defense	Entitlements and Other Mandatory Spending	Nondefense Discretionary Spending	Net Interest	Offsetting Receipts	Total Outlays
1962	9.4	5.5	4.3	1.2	-1.3	19.2
1963	9.1	5.7	4.3	1.3	-1.4	18.9
1964	8.7	5.5	4.6	1.3	-1.2	18.8
1965	7.5	5.2	4.8	1.3	-1.2	17.6
1966	7.9	5.1	5.2	1.3	-1.2	18.2
1967	9.0	5.7	5.1	1.3	-1.3	19.8
1968	9.6	6.2	5.1	1.3	-1.3	21.0
1969	8.9	6.3	4.4	1.4	-1.2	19.8
1970	8.2	6.7	4.5	1.5	-1.2	19.8
1971	7.5	7.6	4.7	1.4	-1.3	19.9
1972	6.9	8.2	4.9	1.3	-1.2	20.0
1973	6.0	8.6	4.7	1.4	-1.4	19.2
1974	5.6	8.8	4.6	1.5	-1.5	19.0
1975	5.7	10.3	5.6	1.5	-1.2	21.8
1976	5.3	10.8	5.4	1.6	-1.2	21.9
1977	5.0	10.2	5.5	1.5	-1.1	21.2
1978	4.8	10.0	5.8	1.6	-1.1	21.1
1979	4.8	9.6	5.6	1.7	-1.1	20.6
1980	5.0	10.4	5.9	2.0	-1.1	22.1
1981	5.3	10.7	5.7	2.3	-1.3	22.7
1982	5.9	11.3	5.0	2.7	-1.2	23.8
1983	6.3	12.0	4.7	2.7	-1.4	24.3
1984	6.2	10.7	4.4	3.0	-1.2	23.1
1985	6.4	11.1	4.4	3.3	-1.2	23.9
1986	6.5	10.9	4.1	3.3	-1.1	23.7
1987	6.4	10.7	3.7	3.1	-1.2	22.7
1988	6.1	10.5	3.7	3.2	-1.2	22.2
1989	5.9	10.6	3.7	3.3	-1.2	22.2

SOURCE: Congressional Budget Office.

TABLE E-7. OUTLAYS FOR ENTITLEMENTS AND OTHER MANDATORY SPENDING, FISCAL YEARS 1962-1989 (In billions of dollars)

Fiscal Year	Medicaid	Other Means-Tested Programs	Social Security	Medicare	Other Retirement and Disability	Unemployment Compensation	Other Non-Means-Tested Programs	Total Entitlements and Other Mandatory Spending
1962	0.1	4.2	14.1	0.0	2.7	3.5	6.1	30.7
1963	0.2	4.6	15.5	0.0	2.9	3.6	6.5	33.2
1964	0.2	4.8	16.3	0.0	3.3	3.4	6.5	34.4
1965	0.3	5.0	17.1	0.0	3.6	2.7	6.1	34.7
1966	0.8	5.0	20.2	a	4.1	2.2	5.1	37.5
1967	1.2	5.0	21.3	3.2	4.8	2.3	7.4	45.3
1968	1.8	5.7	23.0	5.1	5.7	2.2	8.8	52.3
1969	2.3	6.4	26.5	6.3	5.2	2.3	9.5	58.5
1970	2.7	7.4	29.4	6.8	6.6	3.1	10.3	66.2
1971	3.4	10.0	34.8	7.5	8.3	5.8	10.8	80.6
1972	4.6	11.7	39.0	8.4	9.6	6.7	14.1	94.2
1973	4.6	11.4	47.9	9.0	11.7	4.9	20.7	110.2
1974	5.8	13.7	54.5	10.8	13.8	5.6	20.4	124.4
1975	6.8	18.5	63.1	14.1	16.6	12.8	24.4	156.4
1976	8.6	21.7	72.2	17.0	18.9	18.6	25.8	182.8
1977	9.9	23.5	83.2	20.7	21.6	14.3	23.4	196.5
1978	10.7	24.8	91.8	25.0	23.7	10.8	29.5	216.3
1979	12.4	26.5	101.9	28.9	27.9	9.8	26.9	234.2
1980	14.0	32.0	117.1	33.9	32.1	16.9	31.2	277.2
1981	16.8	37.1	138.0	41.3	37.4	18.3	31.5	320.4
1982	17.4	37.4	154.1	49.2	40.7	22.2	35.0	356.0
1983	19.0	40.3	168.6	55.5	43.2	29.7	42.5	398.8
1984	20.1	41.2	176.1	61.0	44.7	16.8	34.8	394.7
1985	22.7	43.3	186.5	69.8	45.5	15.8	53.7	437.3
1986	25.0	44.9	196.7	74.2	47.5	16.1	50.3	454.8
1987	27.4	45.5	205.2	79.9	50.8	15.5	48.0	472.4
1988	30.5	50.0	217.1	85.7	54.2	13.6	51.6	502.7
1989	34.6	54.2	230.4	94.4	57.1	14.1	58.8	543.6

SOURCE: Congressional Budget Office.

a. Less than $150 million.

TABLE E-8. OUTLAYS FOR ENTITLEMENTS AND OTHER MANDATORY SPENDING, FISCAL YEARS 1962-1989 (As a percentage of GNP)

Fiscal Year	Medicaid	Other Means-Tested Programs	Social Security	Medicare	Other Retirement and Disability	Unemployment Compensation	Other Non-Means-Tested Programs	Total Entitlements and Other Mandatory Spending
1962	a	0.8	2.5	0.0	0.5	0.6	1.1	5.5
1963	a	0.8	2.6	0.0	0.5	0.6	1.1	5.7
1964	a	0.8	2.6	0.0	0.5	0.5	1.0	5.5
1965	a	0.7	2.5	0.0	0.5	0.4	0.9	5.2
1966	0.1	0.7	2.7	a	0.6	0.3	0.7	5.1
1967	0.1	0.6	2.7	0.4	0.6	0.3	0.9	5.7
1968	0.2	0.7	2.7	0.6	0.7	0.3	1.0	6.2
1969	0.2	0.7	2.9	0.7	0.6	0.2	1.0	6.3
1970	0.3	0.7	3.0	0.7	0.7	0.3	1.0	6.7
1971	0.3	0.9	3.3	0.7	0.8	0.5	1.0	7.6
1972	0.4	1.0	3.4	0.7	0.8	0.6	1.2	8.2
1973	0.4	0.9	3.7	0.7	0.9	0.4	1.6	8.6
1974	0.4	1.0	3.8	0.8	1.0	0.4	1.4	8.8
1975	0.4	1.2	4.1	0.9	1.1	0.8	1.6	10.3
1976	0.5	1.3	4.3	1.0	1.1	1.1	1.5	10.8
1977	0.5	1.2	4.3	1.1	1.1	0.7	1.2	10.2
1978	0.5	1.1	4.2	1.1	1.1	0.5	1.4	10.0
1979	0.5	1.1	4.2	1.2	1.1	0.4	1.1	9.6
1980	0.5	1.2	4.4	1.3	1.2	0.6	1.2	10.4
1981	0.6	1.2	4.6	1.4	1.3	0.6	1.1	10.7
1982	0.6	1.2	4.9	1.6	1.3	0.7	1.1	11.3
1983	0.6	1.2	5.1	1.7	1.3	0.9	1.3	12.0
1984	0.5	1.1	4.8	1.7	1.2	0.5	0.9	10.7
1985	0.6	1.1	4.7	1.8	1.2	0.4	1.4	11.1
1986	0.6	1.1	4.7	1.8	1.1	0.4	1.2	10.9
1987	0.6	1.0	4.6	1.8	1.1	0.3	1.1	10.7
1988	0.6	1.0	4.5	1.8	1.1	0.3	1.1	10.5
1989	0.7	1.1	4.5	1.8	1.1	0.3	1.1	10.6

SOURCE: Congressional Budget Office.

a. Less than 0.05 percent.

APPENDIX F

MAJOR CONTRIBUTORS TO THE REVENUE AND SPENDING PROJECTIONS

The following analysts prepared the revenue and spending projections in this report:

Revenue Projections

Mark Booth	Corporate income taxes, Federal Reserve System earnings
Maureen Griffin	Social insurance contributions, excise taxes, estate and gift taxes
Richard Kasten	Individual income taxes
Eric Nicholson	Excise taxes, NIPA receipts
Linda Radey	Individual income taxes, excise taxes
Caroline Ratcliffe	Customs duties, miscellaneous receipts
Frank Sammartino	Individual income taxes

Spending Projections

Defense and International Affairs

Eugene Bryton	Defense
Kent Christensen	International affairs
Raymond Hall	Defense
Barbara Hollinshead	Defense
William Myers	Defense
Amy Plapp	Defense
Lisa Siegel	Defense
Joseph Whitehill	International affairs
Ben Wolters	Defense

Spending Projections (continued)

Human Resources

Paul Cullinan	Social Security
Cathy Ellman	Civil Service Retirement, Supplemental Security Income
Alan Fairbank	Hospital Insurance
Karen Graham	Public Health Service
Holly Harvey	Supplementary Medical Insurance
Jean Hearne	Medicaid
Lori Housman	Medicare
Julia Isaacs	Food Stamps, child nutrition
Deborah Kalcevic	Education
Cory Leach	Unemployment Insurance, training programs, veterans' education
Donald Muse	Medicaid, Medicare
Janice Peskin	Aid to Families with Dependent Children, child support enforcement
Kathleen Shepherd	Veterans' benefits

Natural and Physical Resources

Laura Carter	Pollution control and abatement, deposit insurance
Kim Cawley	Energy
Douglas Criscitello	Commerce, disaster relief and insurance
Peter Fontaine	Energy
Theresa Gullo	Water resources, conservation, and land management
James Hearn	General government, Agricultural Credit Insurance Fund, Outer Continental Shelf receipts
David Hull	Agriculture
Mary Maginniss	Deposit insurance
Eileen Manfredi	Agriculture

Spending Projections (continued)

Natural and Physical Resources (continued)

Marjorie Miller	Transportation, Federal Housing Administration
Marta Morgan	Community and regional development, general government
Andrew Morton	Agriculture
Deborah Reis	Recreation, water transportation
Mitchell Rosenfeld	Air transportation, justice, Postal Service
Brent Shipp	Housing and mortgage credit
Michael Sieverts	Science and space, justice, other natural resources

Other

Janet Airis	Appropriation bills
Edward Blau	Appropriation bills
Paul Christy	Other interest
David Elkes	National Income and Product Accounts
Betty Embrey	Appropriation bills
Kenneth Farris	Computer support
Danila Girerd	Credit budget
Glen Goodnow	Authorization bills
Vernon Hammett	Computer support
Sandra Hoffman	Computer support
Richard Krop	Civilian agency pay
Fritz Maier	Computer support
Rodney Rasmussen	Net interest on the public debt
Kathy Ruffing	Treasury borrowing, interest, and debt
Robert Sempsey	Appropriation bills
Karla Sweeney	Appropriation bills
Jeff Swersey	Computer support
Rick Williams	Computer support

GLOSSARY

The definitions of terms in this glossary reflect their usage in this report. Although such use is standard, the definitions may not apply in other contexts. Some entries sacrifice precision for brevity and clarity to the lay reader. For authoritative definitions of budget terms, the reader should consult *A Glossary of Terms Used in the Federal Budget Process*, prepared by the General Accounting Office.

Where appropriate, data sources are indicated, as follows:

BEA denotes Department of Commerce, Bureau of Economic Analysis;

BLS denotes Department of Labor, Bureau of Labor Statistics;

CBO denotes Congressional Budget Office;

Census denotes Department of Commerce, Bureau of the Census;

FRB denotes Federal Reserve Board;

NBER denotes National Bureau of Economic Research.

Aaa corporate bonds: The class of long-term corporate bonds judged by Moody's Investors' Service to have the lowest risk of default.

Aggregate demand: Total purchases of a country's output of goods and services by consumers, businesses, government, and foreigners during a given period. Because purchases equal sales, aggregate demand equals gross national product. (BEA)

Appreciation: Gain in the exchange value of a currency. See also **Exchange rate**.

Appropriation: The legal authority for federal agencies to incur obligations and make payments from the Treasury for specified purposes. The appropriations for national defense and nondefense discretionary spending are generally provided each year in 13 appropriation bills, some or all of which may be combined in a single bill, called a continuing resolution. The appropriations for entitlements and other mandatory spending and for net interest are generally provided on a permanent basis in authorizing legislation.

Authorization: A substantive law that sets up or continues a federal program or agency. Authorizing legislation is normally a prerequisite for appropriations. For some programs, the authorizing legislation itself provides the authority to incur obligations and make payments.

Balanced Budget Act: Common shorthand for the Balanced Budget and Emergency Deficit Control Act of 1985, also commonly known as Gramm-Rudman-Hollings. As amended by the Balanced Budget and Emergency Deficit Control Reaffirmation Act of 1987, the act sets deficit targets of $136 billion for fiscal year 1989, $100 billion for 1990, $64 billion for 1991, $28 billion for 1992, and zero for 1993. If the Office of Management and Budget estimates that the baseline deficit appears likely to exceed these targets by more than $10 billion (zero in 1993), the act requires across-the-board cutbacks in spending by sequestering budgetary resources.

Baseline budget projections: Projections of federal government spending, revenues, and the deficit assuming that current budgetary policies are continued without change. The Congressional Budget Act requires the Congressional Budget Office annually to prepare baseline budget projections for the next five fiscal years. The Balanced Budget Act requires both CBO and the Office of Management and Budget to report in August and October on budget baseline levels for the upcoming fiscal year.

The Congressional Budget Act does not prescribe how to calculate the baseline, but CBO's methodology for the baseline projections follows closely the specifications applicable to the Balanced Budget Act. For revenues and entitlement spending, the baseline generally assumes that laws now on the statute books will continue. For defense and nondefense discretionary spending, the projections for 1990

through 1994 are based on the 1989 appropriations, adjusted only for inflation.

Basis point: One-hundredth of 1 percent--for example, interest rates of 6.4 percent and 6.2 percent differ by 20 basis points.

***Blue Chip* consensus forecast:** The average of about 50 forecasts surveyed by Eggert Economic Enterprises, Inc.

Budget: A detailed statement of actual or anticipated revenues and expenditures during an accounting period.

Budget authority: Authority provided by law to incur obligations that will result in immediate or future spending of federal government funds, except that budget authority does not include authority to insure or guarantee loans. Most budget authority arises from appropriations.

Budget deficit: Amount by which expenditures exceed revenues during a given period.

Budget function: One of 19 areas into which federal spending and credit activity are divided. National needs are grouped into 17 broad budget functions, including national defense, international affairs, energy, agriculture, health, income security, and general government. The two remaining functions--net interest and undistributed offsetting receipts--do not address national needs but are included to make the budget complete.

Budget resolution: A resolution passed by both Houses of the Congress, but not requiring the President's signature, setting forth a Congressional budget plan for the upcoming fiscal year. The plan must be carried out through subsequent legislation, including appropriations and changes in tax and entitlement laws. The Congressional Budget Act establishes various mechanisms that are designed to hold spending and revenues to the targets established in the budget resolution.

Business cycle: Fluctuations in overall business activity accompanied by swings in the unemployment rate, profits, and interest rates. Over a business cycle, real activity rises to a peak value (its highest level to that date in the cycle), then falls until it reaches its trough

value (its lowest level following the peak), whereupon it starts to rise again in a new cycle. Business cycles are irregular, varying in frequency and amplitude. (NBER)

Business fixed investment: Investment in nonresidential structures and producers' durable equipment. By convention, business fixed investment excludes residential investment, even if made by businesses. Fixed investment excludes investment in inventories. (BEA)

Capacity constraints: Limits to which output can be increased without also significantly increasing prices. Examples are shortages of skilled labor or of capital needed for production.

Capacity utilization rate: The seasonally adjusted output of the nation's factories, mines, and electric and gas utilities expressed as a percentage of their capacity to produce output. Capacity is defined as the greatest rate of output a plant can maintain with a realistic work pattern. (FRB)

Capital: *Physical capital.* Output that has been set aside for use in production, rather than consumed. By NIPA convention, private capital goods are composed of residential and nonresidential structures, producers' durable equipment, and business inventories. *Financial capital.* A claim on an individual, business, or government represented by a security such as a mortgage, stock certificate, or bond. Issuing such securities provides the resources to buy physical capital.

Capital cost recovery provisions: Provisions of the tax code for deducting the depreciation of capital goods as a business expense. The Tax Recovery Act of 1986 tries to make such "tax depreciation" correspond more closely than before to economic depreciation--the properly measured loss of value.

Capital gain: Amount by which an asset has increased in value since its purchase. Capital gains "accrue" as the asset rises in value, and are "realized" and subject to tax when the asset is sold.

CCC: See **Commodity Credit Corporation**.

Civilian unemployment rate: Unemployment as a percentage of the civilian labor force--the labor force excluding resident armed forces personnel. (BLS)

Coincident indicator: An economic variable that reaches its peaks and troughs at about the same time as the corresponding peaks and troughs of the business cycle.

Collective bargaining: Bargaining between union and management over wages and other terms of employment.

Commodity Credit Corporation (CCC): An agency of the Department of Agriculture that supports farm incomes and prices through direct payments to farmers and the purchase and sale of farm commodities. Net purchases of commodities in CCC's price support activities appear as part of the federal government's purchases of goods and services in the National Income and Product Accounts, but function more like changes in business inventories.

Compensation: All income due to employees for their work during a given period. Compensation includes wages and salaries as well as fringe benefits and employers' share of social insurance taxes. (BEA)

Constant dollar: Measured in terms of prices of a base period, currently 1982 for most purposes, to remove the influence of inflation. Compare with **Current dollar**.

Consumer durable goods: Consumer goods that, on average, will last more than three years--for example, autos, furniture, or appliances.

Consumer goods: Goods bought by households for their own use.

Consumer Price Index: See **CPI-U** and **CPI-W**.

Consumption: Total purchases of goods and services during a given period by households for their own use. (BEA)

Cost-of-living clause: Provision of a labor contract stipulating that, other things being equal, pay will rise in a specified way based on the increase in some measure of consumer prices, typically the CPI-W.

CPI-U: An index of consumer prices based on the typical market basket of goods and services consumed by all urban consumers during a base period. (BLS)

CPI-W: An index of consumer prices based on the typical market basket of goods and services consumed by urban wage earners and clerical workers during a base period. (BLS)

Credit budget: An addition to the budget that provides a measure of new federal credit activity by recording the gross amount of direct loan obligations and primary loan guarantee commitments issued in a given year. In contrast, the budget counts a direct loan as an outlay when the loan is disbursed, and counts repayments of principal and interest as reductions in outlays. Loan guarantees do not affect federal budget outlays unless there is a default. If the government must make good on its guarantee, the payment is recorded as a budget outlay.

Current dollar: Measured in the dollar value of the period; nominal. Compare with **Constant dollar**.

Deflator: See **Implicit deflator**.

Depreciation: Decline in the value of a currency or a capital good. When applied to a capital good, the term usually refers to loss of value because of obsolescence or wear.

Disposable (personal) income: Income received by individuals, including transfer payments, less personal taxes and fees paid to government. (BEA)

Domestic demand: Total purchases of goods and services, regardless of origin, by resident consumers, businesses, and governments during a given period. Therefore, domestic demand equals gross national product plus imports minus exports. (BEA)

Drought-adjusted GNP: GNP excluding changes in farm output resulting from the 1988 drought. The drought caused a sharp reduction in farm output, which dampened the growth of GNP in 1988 by about 0.3 percentage point, and the rebound from the drought helped push up GNP growth in 1989. Excluding these effects provides a better indication of the underlying rate of economic activity in 1988 and 1989.

Employment cost index: Measure of the price of labor (compared with a base period) that is free from the influence of employment shifts among industries or occupations. (BLS)

Entitlements and other mandatory spending: Programs that make payments to any person, business, or unit of government that seeks the payments and meets the criteria set in law. The Congress controls these programs indirectly, by defining eligibility and setting the benefit or payment rules, rather than directly through the annual appropriation process. The best-known entitlements are the major benefit programs, such as Social Security and Medicare; other entitlements include farm price supports and interest on the federal debt. Mandatory programs--such as the deposit insurance activities of the Federal Deposit Insurance Corporation and the Federal Savings and Loan Insurance Corporation--are also included, because the government must carry out the commitments undertaken.

Expansion: A phase of the business cycle that extends from the trough to the next peak. (NBER)

Federal funds rate: Overnight interest rate at which financial institutions borrow from and lend to each other their monetary reserves (federal funds). A rise in the federal funds rate (compared with other short-term rates) suggests a tightening of monetary policy, whereas a fall suggests an easing. (FRB)

Federal Reserve system: The agency responsible for conducting monetary policy and overseeing credit conditions in the United States.

Final sales: Gross national product minus the change in business inventories. (BEA)

Fiscal policy: The government's choice of tax and spending programs, which influence the level, composition, and distribution of output and income. An easy fiscal policy stimulates the growth of output and income, while a tight fiscal policy restrains their growth. Movements in the standardized-employment budget deficit constitute one overall indicator of the tightness or ease of federal fiscal policy--an increase relative to potential GNP suggests fiscal ease, whereas a decrease suggests fiscal restriction. The President and the Congress jointly carry out federal fiscal policy.

Fiscal year: A yearly accounting period. The federal government's fiscal year begins October 1 and ends September 30. Fiscal years are designated by the calendar years in which they end--for example, fiscal year 1990 begins October 1, 1989, and ends September 30, 1990.

Fixed investment: Investment in fixed capital, such as buildings, machines, or transporation equipment; private domestic investment excluding the change in business inventories. (BEA)

Fixed-weighted price index: An index that measures overall price (compared with a base period) without being influenced by changes in the composition of output or purchases. See also **Implicit deflator.**

Fringe benefits: Compensation of employees not paid directly as wages and salaries or as employers' share of social insurance taxes. Fringe benefits primarily include employer contributions to pension plans, life and medical insurance plans, and workers' compensation--an insurance fund to provide for job-related injury or illness. (BEA)

GDP: See **Gross domestic product.**

GNP: See **Gross national product**.

Government purchases of goods and services: Purchases from the private sector (including compensation of government employees) made by government during a given period. Unlike government expenditures, purchases exclude transfer payments (which include grants and interest paid). (BEA)

Government-sponsored enterprises: Enterprises established and chartered by the federal government to perform specific financial functions, usually under the supervision of a government agency. Major examples are the Federal National Mortgage Association, the Student Loan Marketing Association, and the Federal Home Loan Banks. As private corporations, they are excluded from the budget totals. Recent legislation established two new government-sponsored enterprises to raise funds to assist in resolving insolvent thrift institutions--the Financing Corporation (created in 1987) and the Resolution Financing Corporation (enacted in 1989).

Gross domestic product (GDP): The total current market value of all goods and services produced domestically during a given period. GDP differs from GNP by excluding net income (primarily capital income) that residents earn abroad. (BEA)

Gross national product (GNP): The total current market value of all goods and services produced in a given period by residents of a country and the assets they own. (BEA)

Household survey: Monthly sample survey of households to gather information on the labor force, total employment, and unemployment. (BLS)

Implicit deflator: An overall measure of price (compared with a base period) given by the ratio of current dollar purchases to constant dollar purchases. Changes in an implicit deflator, unlike a fixed-weighted price index, reflect changes in the composition of purchases as well as in the prices of goods and services purchased. (BEA)

Index: An indicator or summary measure that defines the overall level (compared with a base) of some aggregate, such as the general price level or total quantity, in terms of the levels of its components.

Inflation: Growth in a measure of the general price level, usually expressed as an annual rate of change.

Inventories: Stocks of goods held by businesses either for further processing or for sale. (BEA)

Investment: *Physical investment.* Current product set aside during a given period to be used for future production; an addition to the stock of capital goods. By NIPA convention, private domestic investment consists of investment in residential and nonresidential structures, producers' durable equipment, and the change in business inventories. *Financial investment.* Purchase of a financial security.

Labor force: The number of people who have jobs or are available for work and actively seeking jobs. (BLS)

Labor force participation rate: The labor force as a percentage of the noninstitutional population aged 16 years or older. (BLS)

Labor productivity: Average real output per hour of labor. (BLS)

Leading indicator: An economic variable that reaches its peaks and troughs earlier than the corresponding peaks and troughs of the business cycle.

Long-term interest rate: Interest rate earned by a note or bond that matures in 10 or more years.

M1: A relatively narrow measure of the U.S. money supply. It primarily consists of the public's (excluding banks') total holdings of currency, traveler's checks, and checking accounts. (FRB)

M2: A broader measure of the U.S. money supply than M1. It primarily consists of M1 plus the public's holdings of: (1) savings and small (less than $100,000) time deposits and money-market deposit accounts held at depository institutions; and (2) accounts at money-market mutual funds. (FRB)

Means-tested programs: Programs that provide cash or services to low-income people who meet a test of need. Most means-tested programs are entitlements--for example, Medicaid, Food Stamps, Supplemental Security Income, Family Support, and Veterans' Pensions--but a few, such as subsidized housing and various social services, are funded through discretionary appropriations.

Monetary policy: The strategy of influencing the courses of the money supply and interest rates to affect output and inflation. An easy monetary policy suggests faster money growth and initially lower short-term interest rates in an attempt to increase aggregate demand, but it may lead to a higher rate of inflation. A tight monetary policy suggests slower money growth and higher interest rates in the near term in an attempt to reduce inflationary pressure by reducing aggregate demand. The Federal Reserve system conducts monetary policy in the United States.

Monetary reserves: The amount of funds that banks and other depository institutions hold as cash or as deposits with the Federal Reserve system. The Federal Reserve system specifies given amounts of reserves that must be held for every dollar of deposits. Such "reserve

requirements" allow the Federal Reserve system to influence the money supply. (FRB)

Money supply: Private assets that can readily be used to make transactions or can easily be converted into those that can. See **M1** and **M2**.

NAIRU (Nonaccelerating inflation rate of unemployment): The unemployment rate consistent with a constant inflation rate. An unemployment rate greater than NAIRU indicates downward pressure on inflation, while lower unemployment rates indicate upward pressure on inflation. Estimates of NAIRU are based on the historical relationship between inflation and the aggregate unemployment rate. CBO's estimating procedures are described in Appendix B of *The Economic and Budget Outlook: An Update* (August 1987).

National defense: Spending recorded in the national defense function (budget function 050), consisting primarily of the military activities of the Department of Defense, which are funded in the annual defense and military construction appropriation bills. It also includes the defense-related functions of other agencies, such as the Department of Energy's nuclear weapons programs.

National Income and Product Accounts (NIPA): Official U.S. accounts that detail the composition of GNP and how the costs of production are distributed as income. (BEA)

National saving: Total saving by all sectors of the economy: personal saving; business saving (corporate after-tax profits not paid as dividends); and government saving (budget surplus or deficit--indicating dissaving--of all government entities). National saving represents all income not consumed, publicly or privately, during a given period. (BEA)

Net exports: A country's exports less its imports. (BEA)

Net interest: *In the federal budget.* Federal interest payments to the public, as recorded in budget function 900. Net interest also includes, as an offset, interest income received by the government on loans and cash balances. *In the National Income and Product Accounts.* The income component of GNP paid as interest; primarily interest that do-

mestic businesses pay, less interest they receive. The NIPA treat government interest payments as transfers and net them from GNP.

Net national product (NNP): Gross national product minus depreciation of private capital. (BEA)

Net national saving rate: Net national saving as a percentage of NNP.

Net national saving: National saving minus depreciation of private capital.

NIPA: See **National Income and Product Accounts**.

NNP: See **Net national product**.

Nominal: Measured in the dollar value (as in nominal output, income, or wage rate) or market terms (as in the nominal exchange or interest rate) of the period. Compare with **Real**.

Nondefense discretionary spending: Spending for programs controlled by the 11 annual nondefense appropriation bills. The category encompasses most of the government's activities in the areas of international affairs, science and space, transportation, medical research, environmental protection, and law enforcement, to name only a few. About one-fifth of nondefense discretionary spending goes toward pay and benefits for civilian agency employees, and about one-third reflects grants to state and local governments.

Nonfarm business productivity: Labor productivity in the nonfarm business sector. (BLS)

Nonresidential structures: Primarily business buildings such as industrial, office, and other commercial buildings; and structures such as mining and well shafts and those of public utilities. (BEA)

Off-budget: Spending or revenues excluded from the budget totals by law. The Balanced Budget Act requires that the revenues and outlays of the two Social Security trust funds be shown as off-budget. Social Security is included in the totals, however, in determining whether the Balanced Budget Act's deficit targets are being met. As a result of the

Social Security Amendments of 1983, Medicare's Hospital Insurance Trust Fund will be moved off-budget beginning with the 1993 budget. The Omnibus Budget Reconciliation Act of 1989 took the Postal Service fund off-budget and also excluded it from the Balanced Budget Act and Congressional budget resolution processes.

Office vacancy rate: Total unoccupied office floor space offered for lease or rent as a percentage of all private office floor space available in the metropolitan areas sampled. (Coldwell Banker)

Offsetting receipts: Funds collected by the government that are recorded as negative outlays and credited to separate receipt accounts. More than half of offsetting receipts are intragovernmental receipts reflecting agencies' payments to retirement and other funds on their employees' behalf, and they simply balance payments elsewhere in the budget. The remaining offsetting receipts come from the public and generally represent voluntary, business-type transactions. The largest items are the flat premiums for Supplementary Medical Insurance (Part B of Medicare), timber and oil lease receipts, and proceeds from the sale of electric power.

Operating deficit: *Of state and local governments.* Budget deficit excluding revenues and expenditures of their social insurance funds (primarily retirement funds for employees). (BEA)

Organization of Petroleum Exporting Countries (OPEC): The group of oil-rich countries that tries to determine the price of crude oil (given demand) by agreeing to production quotas among its members.

Outlays: The liquidation of a federal obligation, generally by issuing a check or disbursing cash. Sometimes obligations are liquidated (and outlays occur) by issuing agency notes, such as those of the Federal Savings and Loan Insurance Corporation. Unlike outlays for other categories of spending, outlays for interest on the public debt are counted when the interest is earned, not when it is paid.

Outlays may be for payment of obligations incurred in previous fiscal years or in the same year. Outlays, therefore, flow in part from unexpended balances of prior-year budget authority and in part from budget authority provided for the current year.

Peak: See **Business cycle**.

Personal saving: Disposable personal income that households do not use for consumption or interest payments during a given period. (BEA)

Personal saving rate: Personal saving as a percentage of disposable personal income. (BEA)

Point-year of unemployment: An unemployment rate one percentage point above the NAIRU lasting for one year. For example, if the unemployment rate averaged two percentage points above NAIRU for one year, that would be two point-years of unemployment.

Potential GDP: Level of GDP estimated to be consistent with a constant rate of inflation. (CBO)

Potential GNP: Level of GNP estimated to be consistent with a constant rate of inflation. (CBO)

Private saving: Saving by households and businesses; personal saving plus after-tax corporate profits less dividends paid. (BEA)

Producers' durable equipment: Primarily nonresidential capital equipment--such as computers, machines, and transportation equipment--owned by businesses. (BEA)

Public infrastructure: Government-owned goods that provide services to the public, usually with benefits to the community at large as well as to the direct user. Examples include schools, roads, bridges, dams, harbors, and buildings.

Real: Adjusted to remove the effect of inflation so that real (constant-dollar) output represents volume, rather than dollar value, of goods and services, and real income represents power to purchase real output. Real data are constructed by dividing the corresponding nominal data by a price index or deflator. A real interest rate is a nominal interest rate minus the inflation rate of a given price index. Compare with **Nominal**.

Recession: A phase of the business cycle that extends from a peak to the next trough. Real GNP usually falls throughout the recession. (NBER)

Reconciliation: A process used by the Congress to make its tax and spending legislation conform with the targets established in the budget resolution. The budget resolution may contain reconciliation instructions directing certain Congressional committees to achieve savings in tax or spending programs under their jurisdiction. Legislation to implement the reconciliation instructions is usually combined in one comprehensive bill. The reconciliation process primarily affects taxes, entitlement spending, and offsetting receipts. As a general rule, decisions on defense and nondefense discretionary programs are arrived at separately through the appropriation process, which is also governed by allocations in the budget resolution.

Rental vacancy rate: Number of vacant housing units for rent as a percentage of total rental housing units in the areas sampled. (Census)

Reserves: See **Monetary reserves**.

Residential investment: Investment in housing, primarily consisting of construction of new single-family and multifamily housing and alterations and additions to existing housing. (BEA)

Sequestration: The across-the-board cancellation of budgetary resources (new budget authority, new loan guarantees, new direct loans, obligation limitations, defense unobligated balances, and other spending authority as defined in section 401(c)(2) of the Congressional Budget Act) used to enforce the deficit targets in the Balanced Budget Act. Sequestration is triggered if the Office of Management and Budget estimates that the deficit for the upcoming fiscal year will exceed the target by more than $10 billion. No $10 billion margin is pro-vided for fiscal year 1993, when the deficit target is zero. See also **Balanced Budget Act**.

Short-term interest rate: Interest rate earned by a debt instrument that will mature within one year.

Standardized-employment budget deficit: The level of the federal government budget deficit if the economy is operating at potential GNP. (CBO)

Supply shock: An unforeseen change in output that producers will supply. Examples include bumper crops, crop failures, or sudden restrictions on the supply of oil as occurred in 1973-1974 and 1979-1980.

Ten-year Treasury note: Interest-bearing note issued by the U.S. Treasury that is redeemed in 10 years.

Three-month Treasury bill: Security issued by the U.S. Treasury that is redeemed in 91 days.

Trade-weighted exchange rate: An index of the exchange value of the dollar against the currencies of 10 industrial countries. The weight for each of the 10 countries is the 1972-1976 average world trade of that country divided by the average world trade of all 10 countries combined. (FRB)

Transfer Payments: Payments in return for which no good or service is received--for example, welfare or Social Security payments or money sent to relatives abroad. (BEA)

Trough: See **Business cycle**.

Trust fund: A fund, designated as a trust fund by statute, that is credited with income from earmarked collections and charged with certain outlays. Collections may come from the public (for example, taxes or user charges) or from intrabudgetary transfers. There are more than 150 federal government trust funds, of which the largest and best-known finance several major benefit programs (including Social Security and Medicare) and certain infrastructure spending (the Highway and the Airport and Airway trust funds). The term "federal funds" refers to all programs that are not trust funds.

Underlying rate of inflation: Rate of inflation of a modified CPI-U that excludes from the market basket the components most volatile in price--food, energy, and used cars.

Unemployment: The number of jobless people who are available for work and actively seeking jobs. (BLS)

Unemployment rate: Unemployment as a percentage of the labor force. (BLS)

Unit labor costs: Average labor cost (compensation) incurred in producing a unit of output. (BLS)

Velocity: The ratio of GNP to a measure of the money supply--for example, GNP divided by M2 gives M2 velocity. Velocity indicates how often, on average, a unit of money is exchanged in producing a unit of GNP.

Yield: The average annual rate of return on a security, including interest payments and repayment of principal, if held to maturity.

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